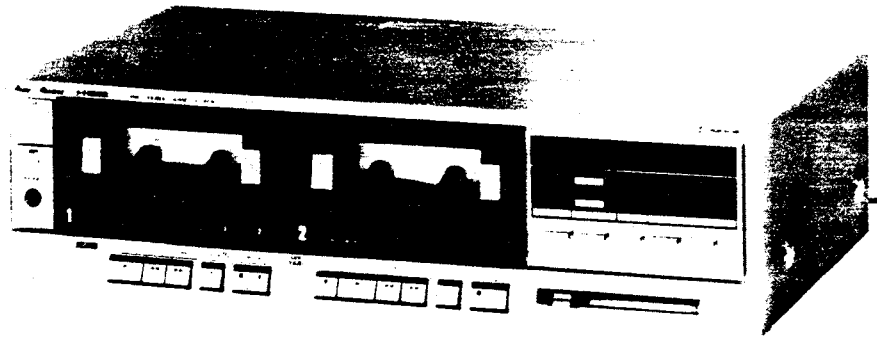
SERVICE MANUAL

FISHER

CR-W81

Stereo Double Cassette Deck

(EUROPE)



142 41906
(Silver)
142 41910
(Black)

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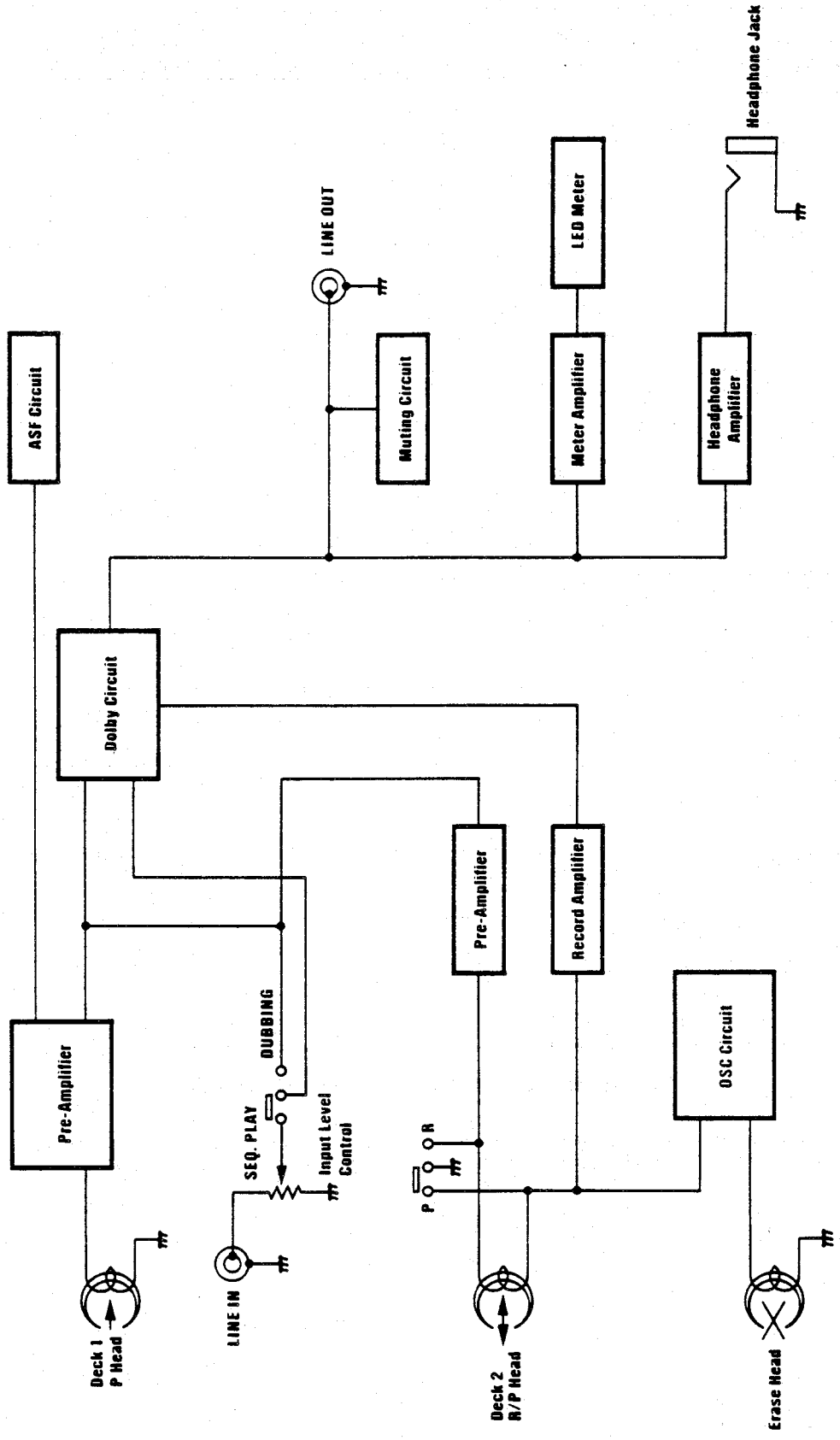
SPECIFICATIONS

CASSETTE DECK	CR-W81
Motor	(2) DC Governor
Cassette Loading	(2) Front
Drive System	(2) Capstan
Number of Heads	2 / 2
Head Material	Hard Permalloy / Ferrite
Operation	(2) Powered Mechanism
Wow & Flutter	0.06 % WRMS
Signal-to-Noise Ratio (CCIR Weighted) Dolby Off	52 dB
Dolby On B	62 dB
Dolby On C	72 dB
Erase Ratio	70 dB
Channel Separation	40 dB
Signal Crosstalk	70 dB
Frequency Response (Dolby Off) Normal Tape (±3 dB)	40 Hz – 14 kHz
CrO_2 Equivalent Tape (±3 dB)	40 Hz – 15 kHz
Metal Tape (±3 dB)	40 Hz – 15 kHz
Total Harmonic Distortion at 0 VU	1.2 %
Fast Forward / Rewind Time (C-60)	110 sec.
Level Indicators	(2) L.E.D. Meters
Input (Sensitivity / Impedance)	(2) Line 100 mV / 50 kΩ
Output (Level at 0 VU / Impedance)	(2) Line 500 mV / 3.3 kΩ
Tape Selector Switch	Normal, CrO_2, Metal
Tape Counter	Mechanical
Power Requirements (50 Hz)	AC 110 / 220 V
Power Consumption	19 Watts
Dimensions (W x H x D)	440 x 123 x 265 mm
Weight (approx.)	4.5 kg

Dolby is registered trademark of Dolby Laboratories.

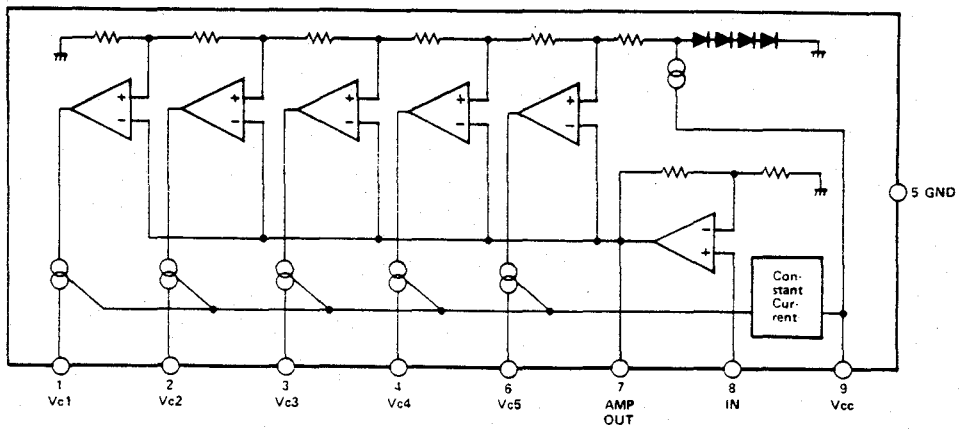
Because its products are subject to continuous improvement, Fisher Corporation reserves the right to modify product designs and specifications without notice and without incurring any obligation.

FUNCTIONAL BLOCK DIAGRAM

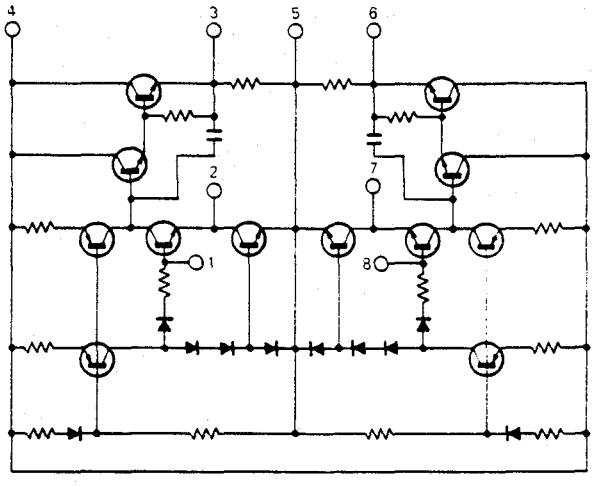


IC SIGNAL FLOW & EQUIVALENT CIRCUIT

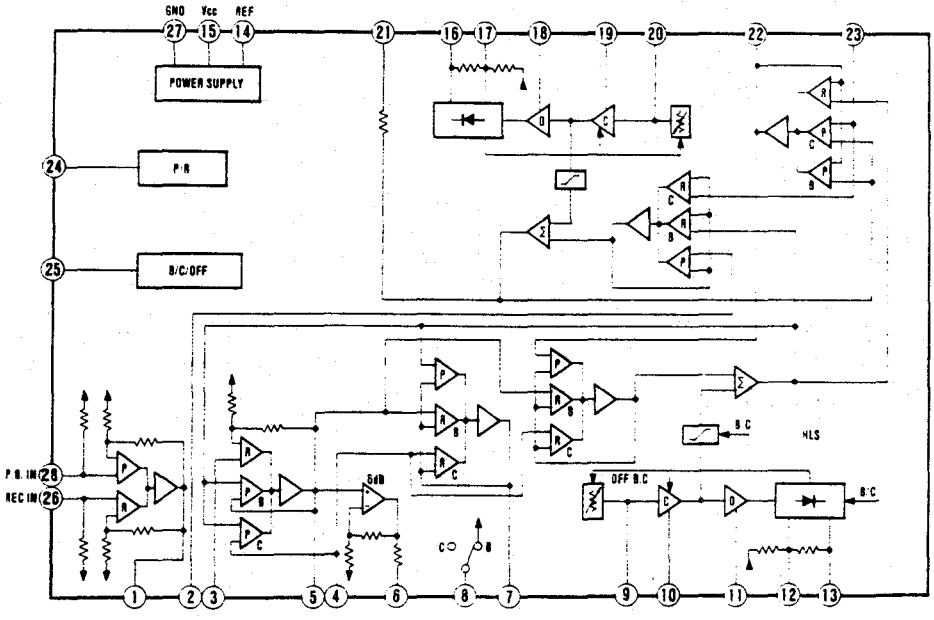
METER IC BA 6124



AF AMP IC BA 3302

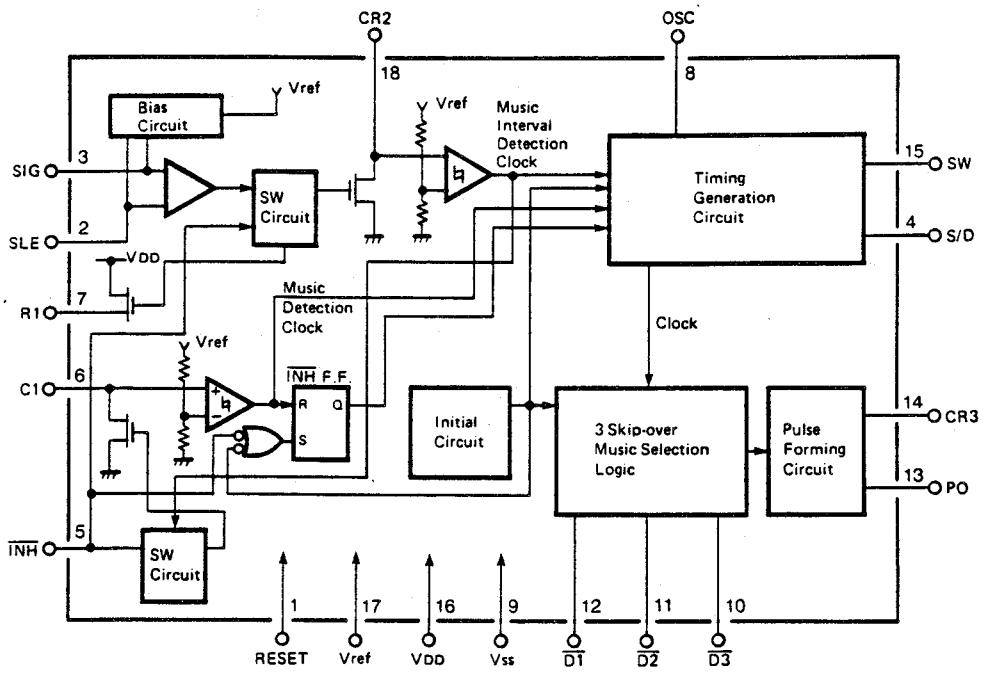


DOLBY IC TEA 0665

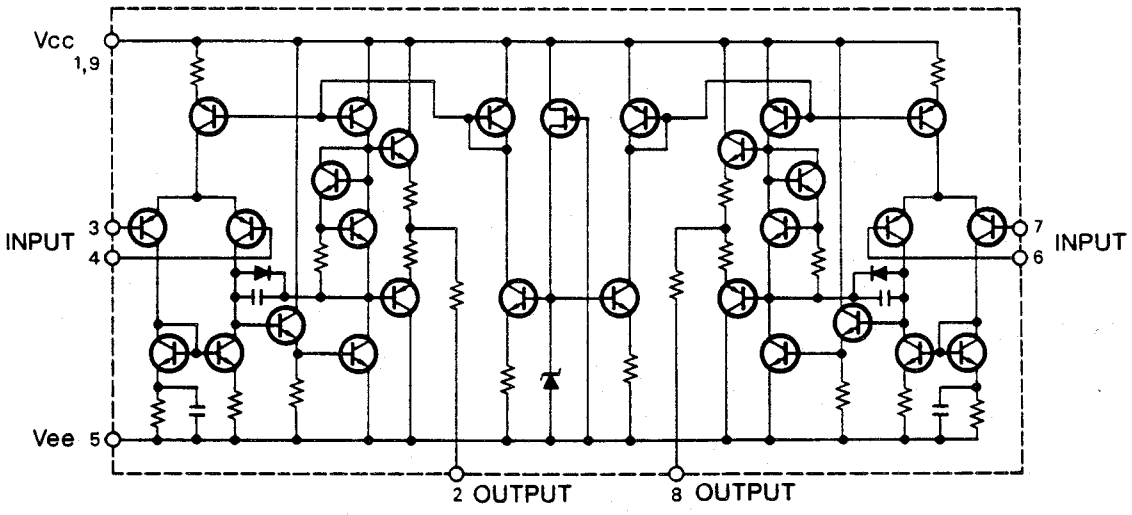


IC SIGNAL FLOW & EQUIVALENT CIRCUIT (Continued)

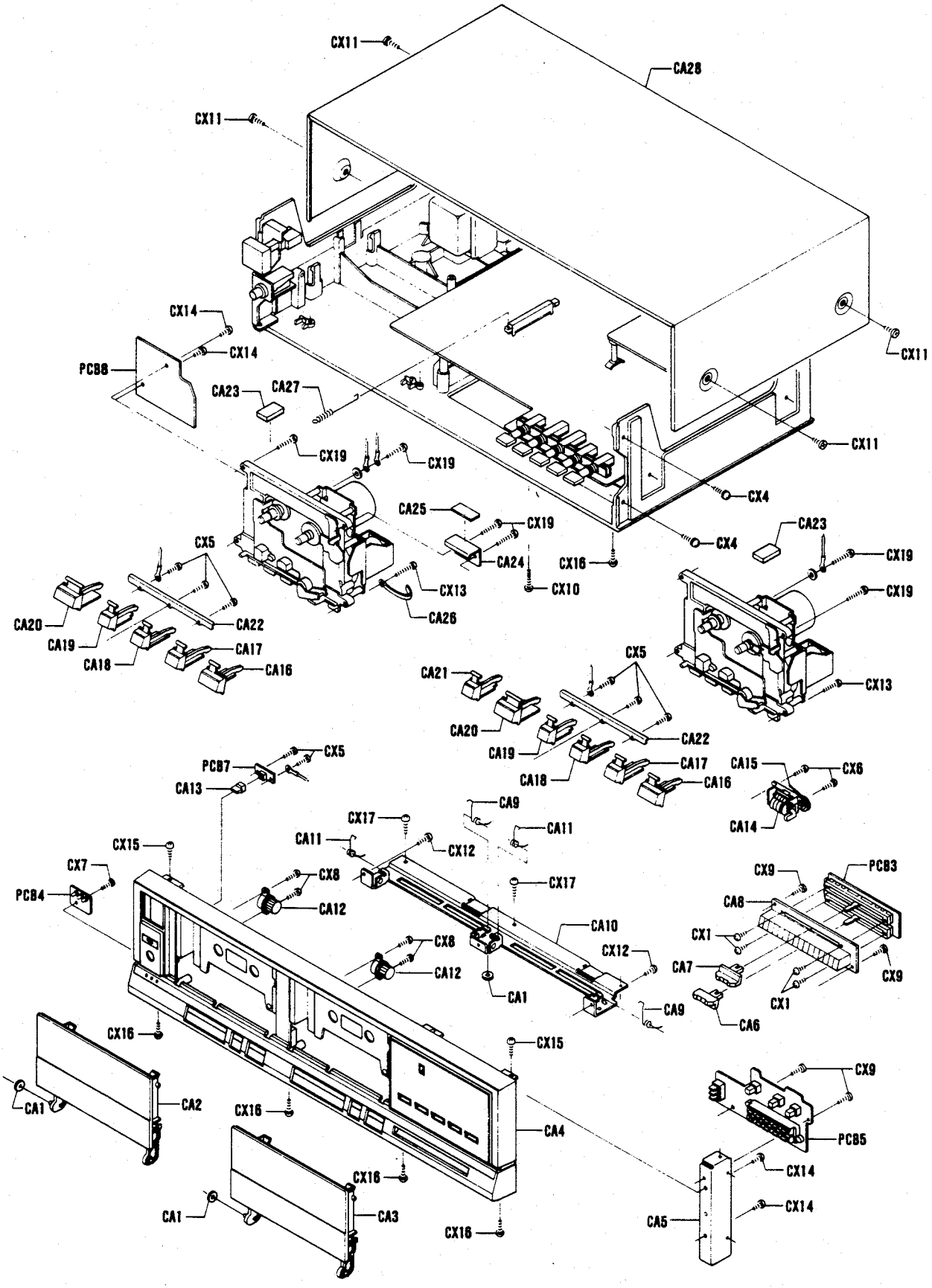
ASF IC LC 7510



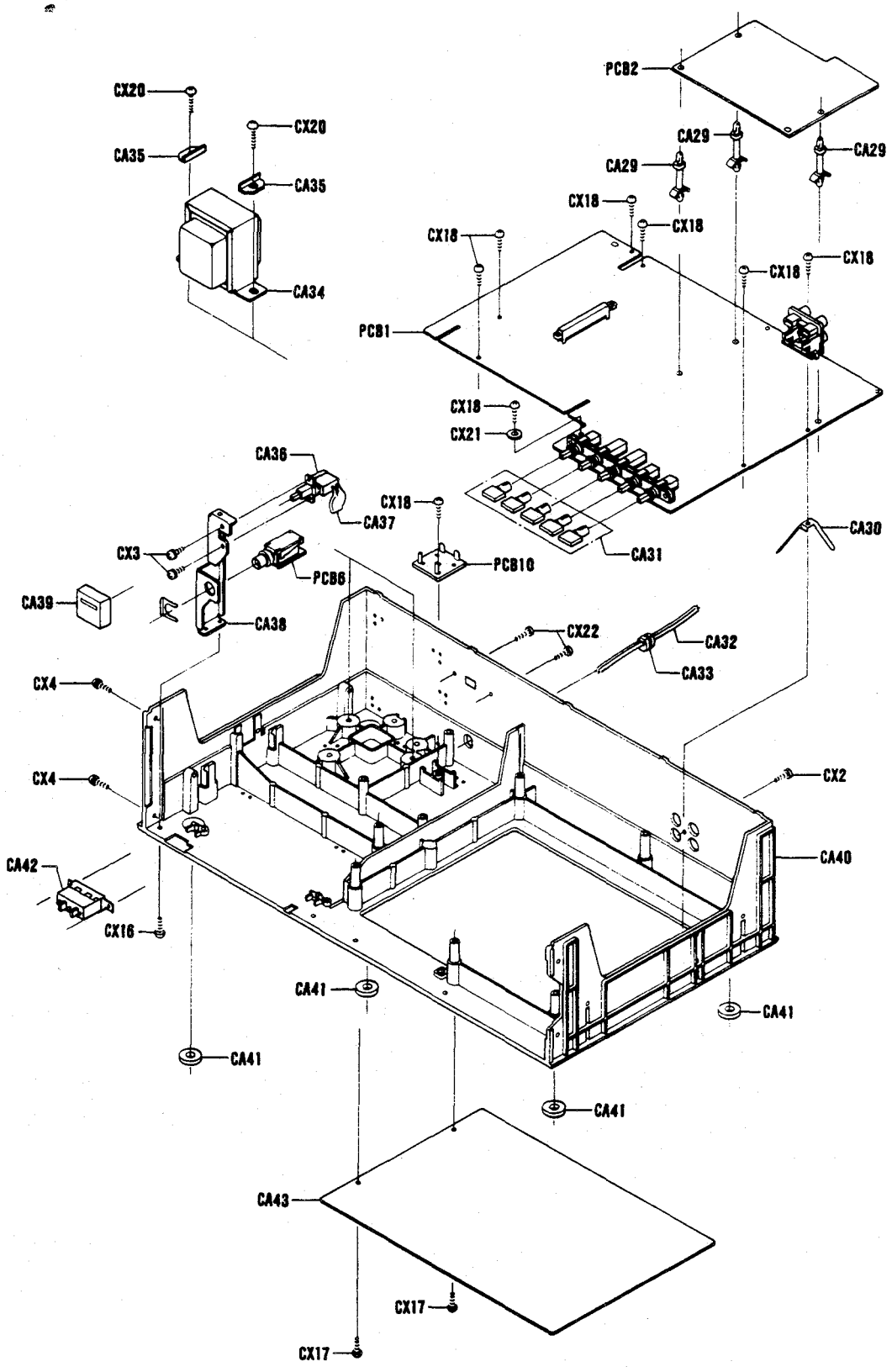
AF AMP IC LA 6458 DS



CABINET & CHASSIS EXPLODED VIEW



CABINET & CHASSIS EXPLODED VIEW (Continued)



CABINET & CHASSIS PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKAGE		
	141 6 1419 65817	Box Corrugate Exp (Silver)	1
	141 6 1419 65816	Box Corrugate Exp (Black)	1
	141 6 1449 83500	Pad Right	1
	141 6 1449 83600	Pad Left	1
	141 6 1449 95200	Pad	1
	141 6 1469 01200	Pad Low	1
	141 6 2519 09790	Poly Cover	1
	141 6 4559 03300	Serial No. Sheet	2
	ACCESSORIES		
	131 0 4004 15200	Wire Shield Assy	1
	131 0 4004 15201	Wire Shield Assy	1
	131 6 2719 10801	Bag Fan	1
	131 6 4519 15700	Guarantee Cert	1
	131 6 4559 03200	Serial No Sheet	1
	142 6 4119 32163	Instruction Booklet	1
	CABINET		
	⚠ 4 2379 70110	Solderless Terminal	2
	141 2 4729 07100	Wire Band	4
	141 2 1419 13369	Rating Plate	1
	141 2 4729 07100	Wire Band	5
C3	⚠ 4 2239 70490	Capacitor 0.01μF 400V	1
CA1	141 2 4539 02000	Washer	3
CA2	141 0 1249 30102	Lid Cassette Assy (Silver)	1
CA2	141 0 1249 30100	Lid Cassette Assy (Black)	1
CA3	141 0 1249 30103	Lid Cassette Assy (Silver)	1
CA3	141 0 1249 30101	Lid Cassette Assy (Black)	1
CA4	141 0 1129 07006	Cabinet Front Assy (Silver)	1
CA4	141 0 1129 07007	Cabinet Front Assy (Black)	1
CA5	141 2 3169 24700	Bracket Front	1
CA6	141 2 1649 30700	Knob Volume Right	1
CA7	141 2 1649 30600	Knob Volume Left	1
CA8	141 2 3619 12101	Cover Volume (Silver)	1
CA8	141 2 3619 12100	Cover Volume (Black)	1
CA9	141 2 8549 27000	Spring Cassette-up R	2
CA10	141 2 3169 24801	Bracket Chassis	1
CA11	141 2 8549 27100	Spring Cassette-up L	2
CA12	141 0 5519 07902	Gear Eject Assy	2
CA13	141 2 1659 14600	Knob	1
CA14	141 2 8119 13100	Counter	1
CA15	141 2 5649 04300	Belt Counter	1
CA16	141 2 1659 10800	Button Eject	2
CA17	141 2 1659 10700	Button Pause	2
CA18	141 2 1659 10600	Button FF	2
CA19	141 2 1659 10500	Button Rewind	2
CA20	141 2 1659 10400	Button Play	2
CA21	141 2 1659 10300	Button Recod	1
CA22	141 2 3519 71700	Plate Knob	2
CA23	141 2 4459 35700	Cushion Cover	2
CA24	141 2 3169 24600	Bracket Mecha	1
CA25	141 2 4459 35800	Cushion	1
CA26	141 2 4729 04100	Lug	1
CA27	141 2 8549 27900	Spring RP	1
CA28	141 2 1119 83900	Cover (Silver)	1
CA28	141 2 1119 83901	Cover (Black)	1
CA29	141 2 7539 40800	Pole	3
CA30	141 2 8539 53200	Spring Earth	1
CA31	131 2 1601 70100	Knob	5
CA32	⚠ 4 2439 70350	Power Cord	1
CA33	141 2 3899 10400	Heyco Bushing	1
CA34	⚠ 4 2519 74051	Power Trans [T1]	1
CA35	141 2 3719 05500	Fix Trans	2
CA36	⚠ 4 2312 05030	Switch Push Power [SW15]	1
CA37	141 2 4359 22500	Cover Capacitor	1
CA38	141 2 3659 21100	Bracket Switch	1
CA39	131 2 1601 85200	Knob Power (Silver)	1
CA39	131 2 1601 85202	Knob Power (Black)	1
CA40	141 2 3119 17907	Chassis Cabinet (Silver)	1
CA40	141 2 3119 17906	Chassis Cabinet (Black)	1
CA41	141 2 4469 22000	Cushion	4
CA42	⚠ 4 2319 72140	Switch Slide (VOLTAGE SELECT) [SW16]	1
CA43	141 2 2449 36000	Sheet	1
CX1	101 3 1302 00411	Screw, Pan Hd., +M2.0x4 (Silver)	4
CX1	101 3 1302 00418	Screw, Pan Hd., +M2.0x4 (Black)	4
CX2	102 3 1703 01218	Screw, Bind Hd. Tapping-1, +M3.0x12	1
CX3	131 3 1303 00611	Screw, Pan Hd. C SW, +M3.0x6	2
CX4	131 3 1303 00811	Screw, Pan Hd. C SW, +M3.0x8	4
CX5	143 3 1302 60611	Screw, Pan Hd. Tapping-B, +M2.6x6	8
CX6	143 3 1302 60811	Screw, Pan Hd. Tapping-B, +M2.6x8	2
CX7	143 3 1702 60611	Screw, Bind Hd. Tapping-B, +M2.6x6	1
CX8	143 3 1702 60811	Screw, Bind Hd. Tapping-B, +M2.6x8	4
CX9	143 3 1702 61011	Screw, Bind Hd. Tapping-B, +M2.6x10	4
CX10	143 3 1702 61411	Screw, Bind Hd. Tapping-B, +M2.6x14	1
CX11	143 3 1704 01214	Screw, Bind Hd. Tapp.-B, +M4.0x12 (Silver)	4
CX11	143 3 1704 01218	Screw, Bind Hd. Tapp.-B, +M4.0x12 (Black)	4
CX12	143 3 1902 60611	Screw, Brazier Hd. Tapping-B, +M2.6x6	3
CX13	143 3 1902 61411	Screw, Brazier Hd. Tapping-B, +M2.6x14	2
CX14	143 3 1903 00611	Screw, Brazier Hd. Tapping-B, +M3.0x6	4
CX15	143 3 1903 00811	Screw, Brazier Hd. Tapping-B, +M3.0x8	2
CX16	143 3 1903 00811	Screw, Braz. Hd. Tapp.-B, +M3.0x8 (Silver)	6
CX16	143 3 1903 00818	Screw, Braz. Hd. Tapp.-B, +M3.0x8 (Black)	6
CX17	143 3 1903 01011	Screw, Brazier Hd. Tapping-B, +M3.0x10	4
CX18	143 3 1903 01211	Screw, Brazier Hd. Tapping-B, +M3.0x12	8
CX19	143 3 1903 01611	Screw, Brazier Hd. Tapping-B, +M3.0x16	6
CX20	143 3 1904 01218	Screw, Brazier Hd. Tapping-B, +M4.0x12	2
CX21	110 3 9321 00102	Fiber Washer, M3.2x10.0x1.0	1
CX22	101 3 1702 00618	Screw, Bind Hd. +M2.0x6	2
PCB1	141 0 1939 07272	Amplifier P.C.B. Assy	1
PCB2	141 0 1939 07341	DOLBY C P.C.B. Assy	1
PCB3	141 0 1939 07280	REC Volume P.C.B. Assy	1
PCB4	141 0 1939 07290	ASF LED P.C.B. Assy	1
PCB5	141 0 1939 07300	LED Meter P.C.B. Assy	1
PCB6	141 0 1939 07310	Headphone P.C.B. Assy	1
PCB7	141 0 1939 07320	ASF Switch P.C.B. Assy	1
PCB8	141 0 1939 07350	ASF P.C.B. Assy	1
PCB9	141 0 1939 07360	Terminal P.C.B. Assy	1
PCB10	141 0 1939 07330	Power Terminal P.C.B. Assy	1

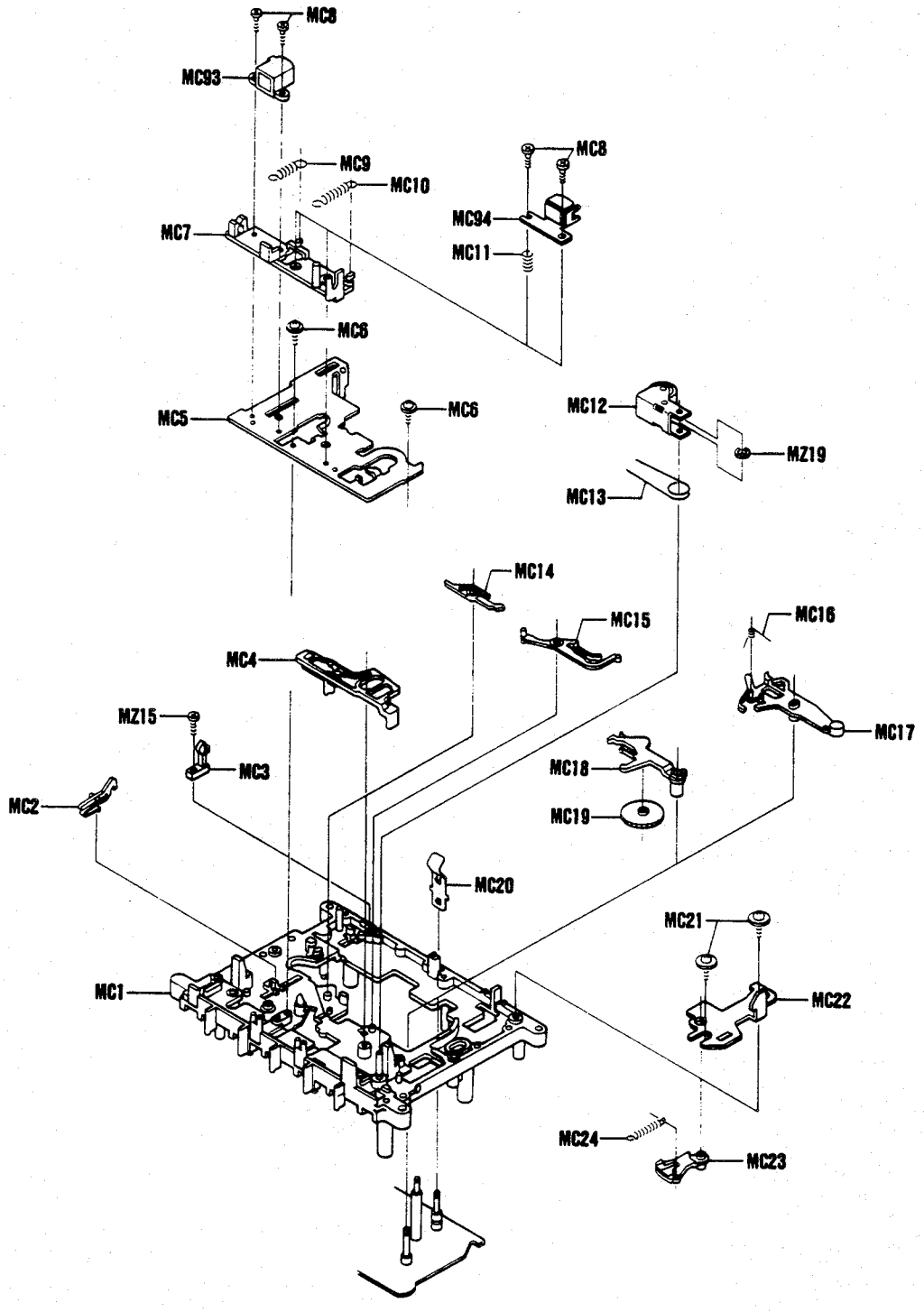
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

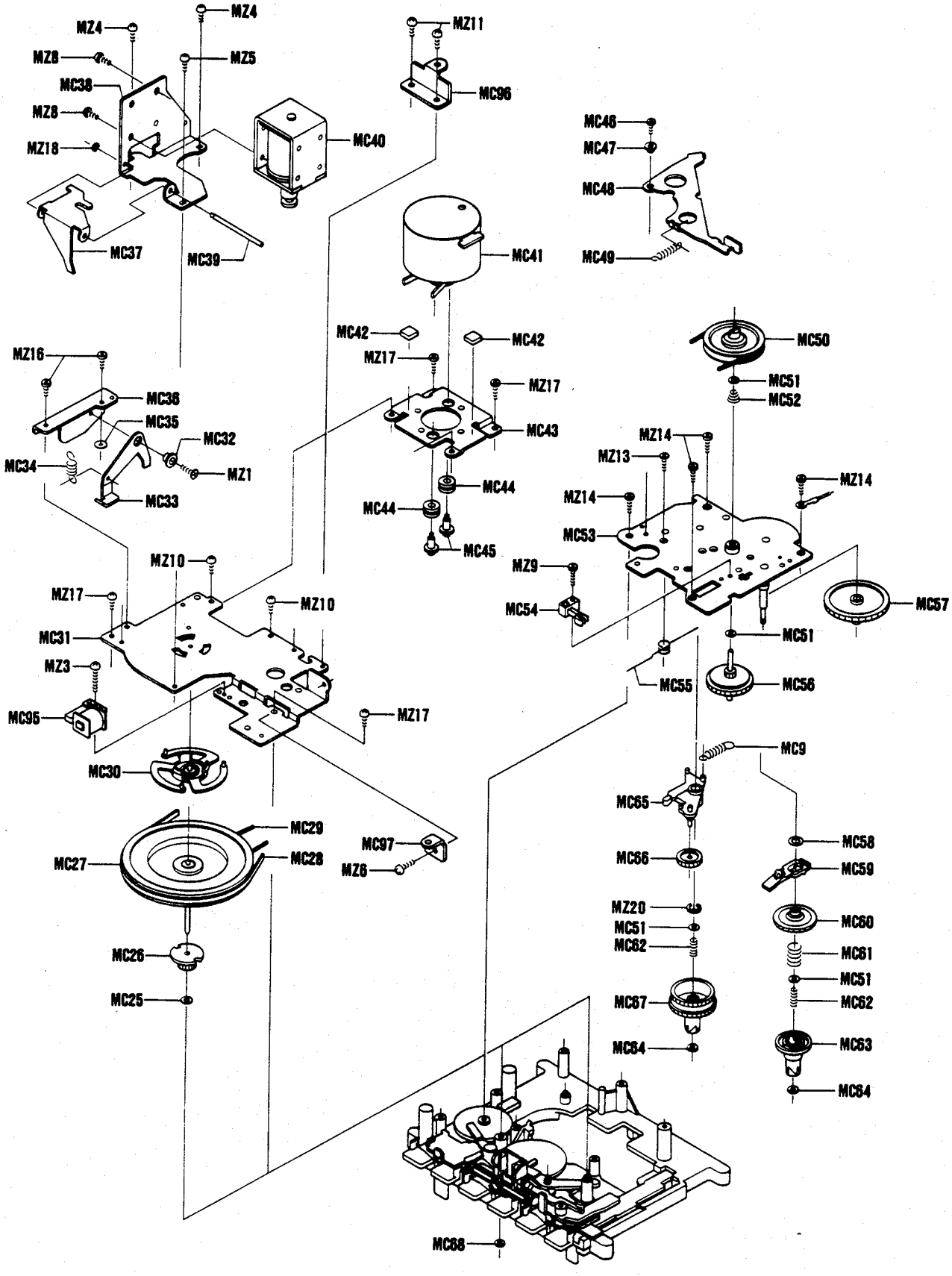
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

MECHANISM EXPLODED VIEW
(DECK 1 TOP)



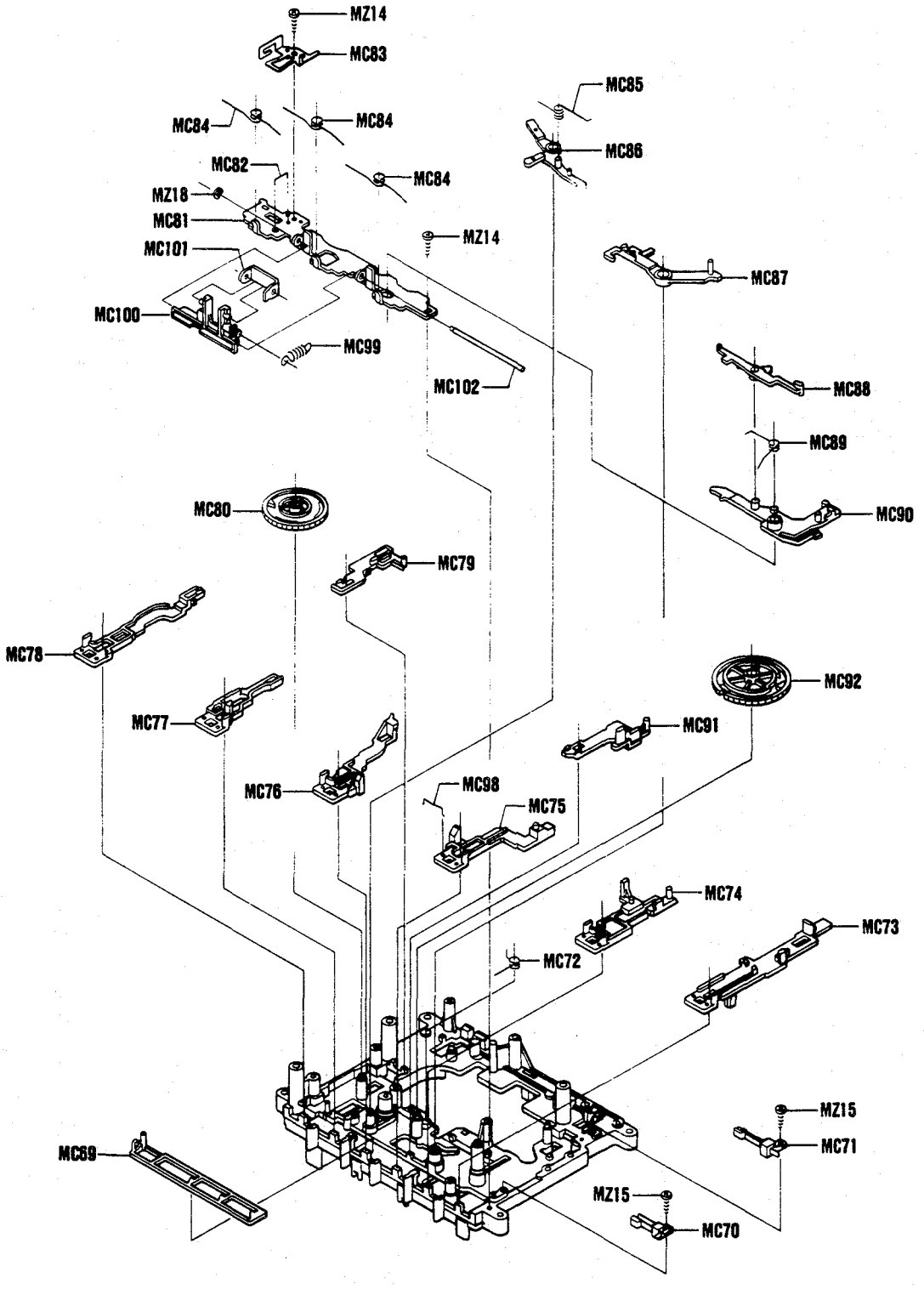
MECHANISM EXPLODED VIEW (Continued)

(DECK 1 BOTTOM-1)



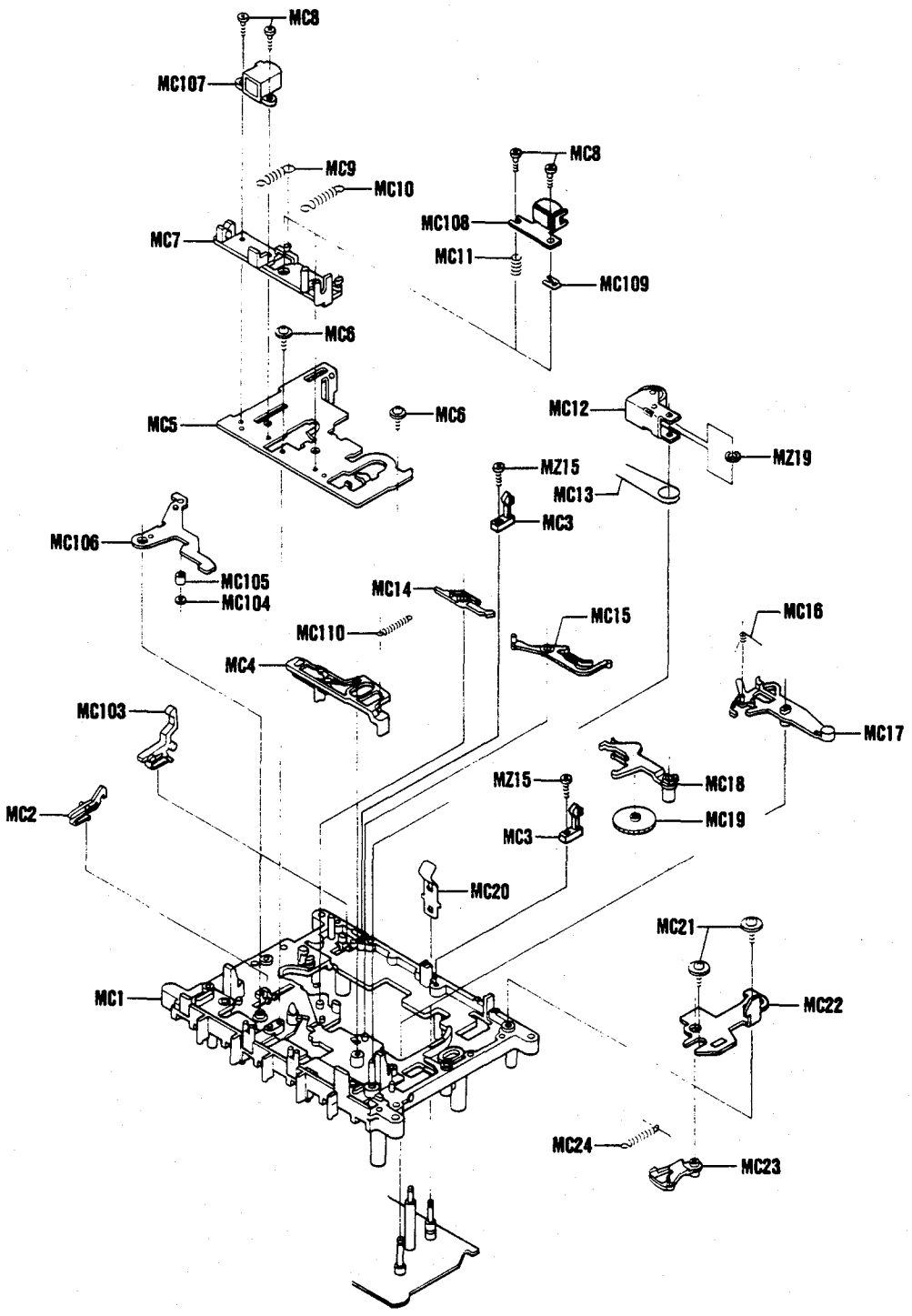
MECHANISM EXPLODED VIEW (Continued)

(DECK 1 BOTTOM-2)



MECHANISM EXPLODED VIEW (Continued)

(DECK 2 TOP)



MECHANISM EXPLODED VIEW (Continued)

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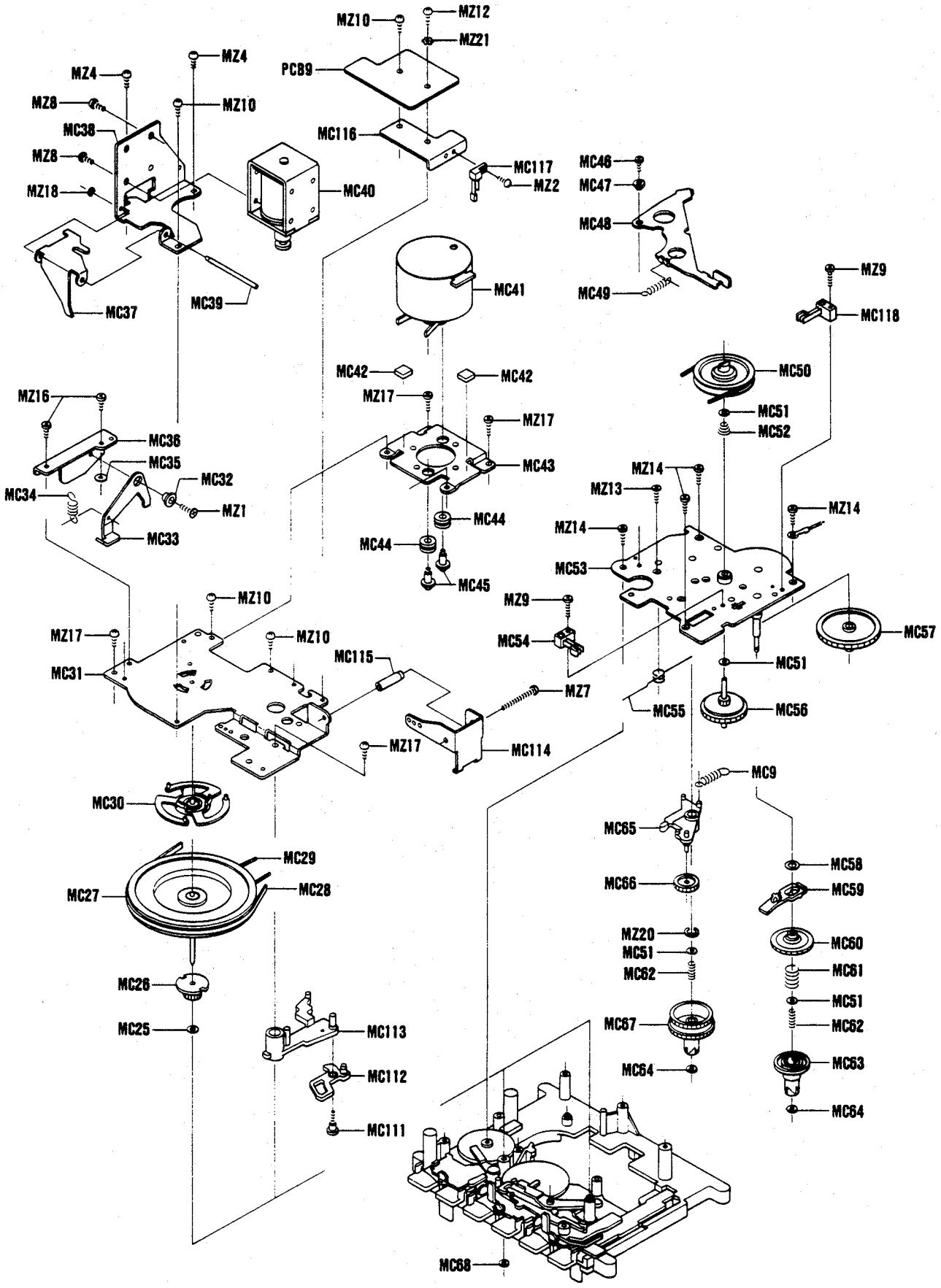

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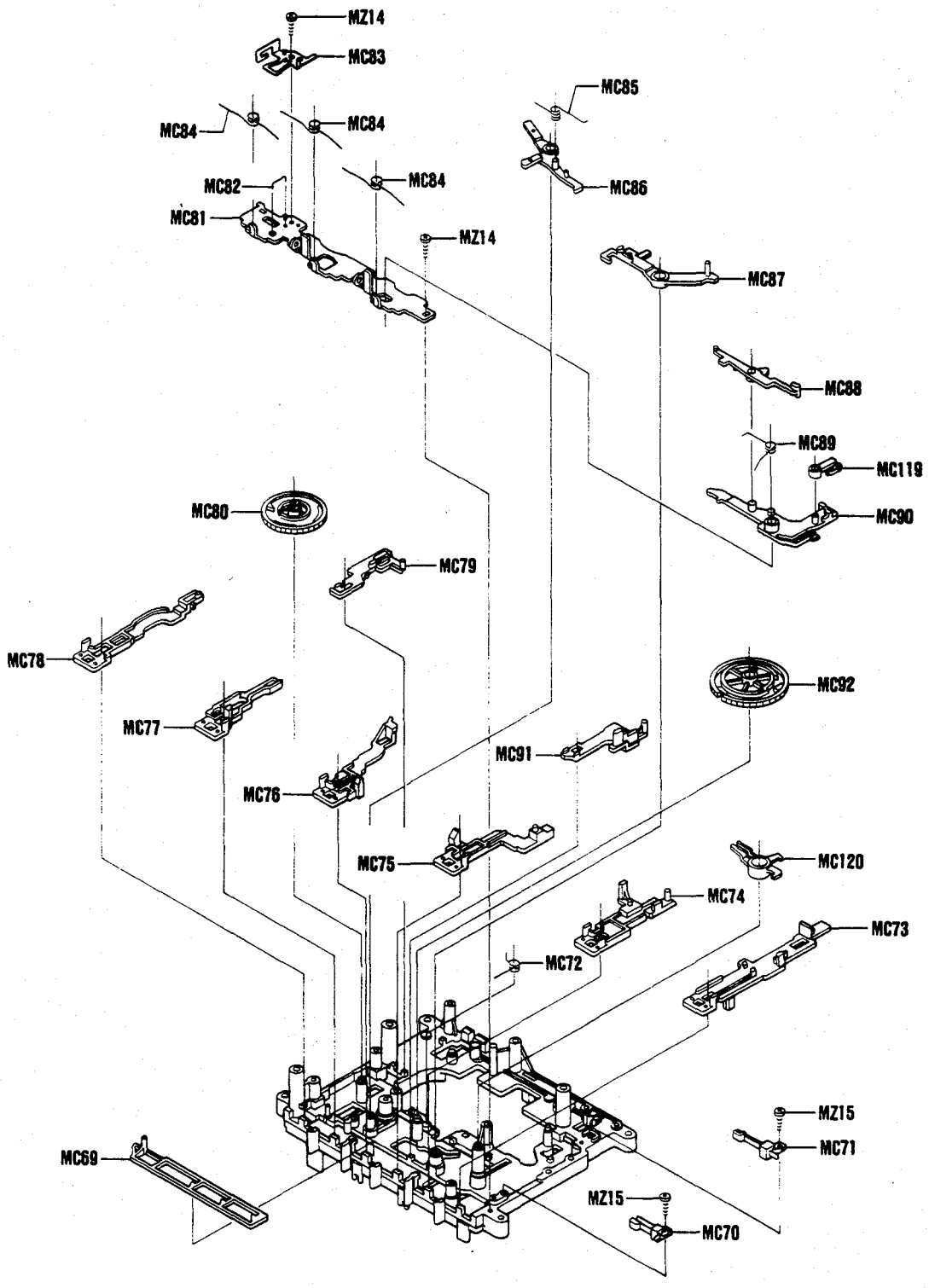
(DECK 2 BOTTOM-2)



MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	DECK 1 & DECK 2 SIMILAR PARTS		
C1	CD1 0 6250 0001V	Electrolytic 10μF 25V	1
C2	CD1 0 6250 0001V	Electrolytic 10μF 25V	1
	202 5 2500 13541	Diode, DS 135 [D402]	1
	202 5 2500 13541	Diode, DS 135 [D403]	1
	141 2 4729 04100	Lug	2
MC1	141 0 3119 21900	Chassis Assy	2
MC2	141 2 7419 81300	Lever Cassette	2
MC3	4 2319 75860	Leaf Switch (CrO_2) [SW6 & SW10]	2
MC3	4 2319 75860	Leaf Switch (Metal) [SW11]	1
MC4	141 2 7419 80700	Lever Base Slide	2
MC5	141 2 7319 52801	Base Slide	2
MC6	141 2 4219 13201	Screw Washer	4
MC7	141 2 3529 35900	Speacer Head	2
MC8	141 2 4219 30300	Screw, Bind Hd. +M2.0x6	8
MC9	141 2 8519 64900	Spring Arm Gear	4
MC10	141 2 8549 18700	Spring Slide Base	2
MC11	141 2 8559 00201	Spring Head	2
MC12	141 0 5419 02201	Pinchroller Assy	2
MC13	141 2 8529 12500	Spring Pinchroller	2
MC14	141 2 7149 05600	Brake Supply Reel	2
MC15	141 2 7149 05700	Brake Take-up Reel	2
MC16	141 2 8529 13200	Spring Sensor	2
MC17	141 2 7419 80100	Lever ASO	2
MC18	141 2 7439 30100	Arm Take-up	2
MC19	141 2 5519 45300	Gear Take-up	2
MC20	141 2 8539 47901	Spring Cassette	2
MC21	141 2 4219 05400	Screw Washer	4
MC22	141 2 7319 59300	Plate Eject	2
MC23	141 2 7419 81100	Lever Stop Eject	2
MC24	141 2 8549 18500	Spring Eject	2
MC25	141 2 4539 20900	Washer	2
MC26	141 2 5519 45200	Gear Flywheel	2
MC27	141 2 5219 15000	Flywheel Capstan	2
MC28	141 2 5619 02000	Belt	2
MC29	141 2 5649 21200	Belt Wind	2
MC30	141 2 5739 06100	Thrust Flywheel	2
MC31	141 2 3519 61402	Support Flywheel	2
MC32	141 2 3529 16000	Spacer Lever Select	2
MC33	141 2 7419 88900	Lever Eject	2
MC34	141 2 8549 00600	Spring Lever Eject	2
MC35	141 2 4539 37500	Washer	2
MC36	141 2 3519 68500	Bracket Eject	2
MC37	141 2 7419 94700	Lever Plunger	2
MC38	141 2 3519 72600	Bracket Plunger	2
MC39	141 2 5529 17001	Spindle Lever	2
MC40	4 2649 70640	Solenoid [SL1 & SL2]	2
MC41	4 5279 71238	Motor [M1 & M2]	2
MC42	141 2 4459 11800	Cushion Motor	4
MC43	141 2 3519 61502	Bracket Motor	2
MC44	141 2 4469 21300	Cushion	4
MC45	141 2 4219 30100	Screw	4
MC46	141 2 4219 03000	Screw	2
MC47	141 2 3529 36100	Spacer Lever	2
MC48	141 2 7419 82800	Lever Shut Off Switch	2
MC49	141 2 8519 61100	Spring Slide	2
MC50	141 2 5519 45700	Pulley Friction	2
MC51	141 2 4539 27601	Washer	8
MC52	141 2 8559 04700	Spring Pulley	2
MC53	141 0 3119 21800	Plate Chassis Assy	2
MC54	4 2319 74362	Leaf Switch (Motor) [SW4 & SW8]	2
MC55	141 2 8529 12700	Spring Arm FF	2
MC56	141 0 5519 09600	Friction Assy	2
MC57	141 2 5519 45600	Gear ASO	2
MC58	141 2 4539 28001	Washer	2
MC59	141 2 7419 80200	Lever Rewind	2
MC60	141 2 5319 11600	Gear Reel Supply	2
MC61	141 2 8519 67900	Spring Reel	2
MC62	141 2 8559 00100	Spring Supply	4
MC63	141 2 5319 11700	Fin Reel Supply	2
MC64	141 2 4539 15700	Washer	4
MC65	141 2 7439 30000	Arm Fastwind	2
MC66	141 2 5519 45100	Gear Fastwind	2
MC67	141 2 5319 11500	Gear Reel Take-up	2
MC68	141 2 4539 17600	Washer	2
MC69	141 2 7319 53600	Plate Lock	2
MC70	4 2319 71863	Leaf Switch (F.F/Rew) [SW12]	1
MC70	4 2319 71863	Leaf Switch (ASF) [SW7]	1
MC71	4 2319 74550	Leaf Switch (Play Mute) [SW5 & SW9]	2
MC72	141 2 8529 12600	Spring Gear Actuate Play	2
MC73	141 2 7319 53500	Rod Record	2
MC74	141 2 7319 53400	Rod Play	2
MC75	141 2 7319 53300	Rod Rewind	2
MC76	141 2 7319 53200	Rod Fastwind	2
MC77	141 2 7319 53100	Rod Pause	2
MC78	141 2 7319 53000	Rod Stop	2
MC79	141 2 7319 54900	Rod ASO	2
MC80	141 2 5519 45800	Gear Actuate Pause	2
MC81	141 2 6139 14300	Frame Rod	2
MC82	141 2 8529 12800	Spring Pause Latch	2
MC83	141 2 8539 46700	Spring Plate Lock	2
MC84	141 2 8529 12401	Spring Rod FF	6
MC85	141 2 8529 13300	Spring Lever Pause	2
MC86	141 2 7419 80600	Lever Pause Start	2
MC87	141 2 7419 80500	Lever Play Start	2
MC88	141 2 7419 80800	Lever Switch Cue Review	2
MC89	141 2 8529 14200	Spring Stop Record	2
MC90	141 2 7419 81000	Lever Stop Record	2
MC91	141 2 7319 52900	Rod Switch	2
MC92	141 2 5519 45900	Gear Actuate Play	2
MZ1	101 3 1202 60611	Screw, Flat Hd., +M2.6x6	2
MZ2	101 3 1302 00311	Screw, Pan Hd., +M2.0x3	1
MZ3	101 3 1302 00811	Screw, Pan Hd., +M2.0x8	1
MZ4	101 3 1302 60311	Screw, Pan Hd., +M2.6x3	4
MZ5	101 3 1302 60511	Screw, Pan Hd., +M2.6x5	1
MZ6	101 3 1302 60611	Screw, Pan Hd., +M2.6x6	1
MZ7	101 3 1302 62011	Screw, Pan Hd., +M2.6x20	1
MZ8	101 3 1303 00511	Screw, Pan Hd., +M3.0x5	4
MZ9	101 3 1702 00811	Screw, Bind Hd., +M2.0x8	3
MZ10	103 3 1302 60511	Screw, Pan Hd. Tapping-2, +M2.6x5	6
MZ11	103 3 1302 60611	Screw, Pan Hd. Tapping-2, +M2.6x6	2
MZ12	103 3 1702 60811	Screw, Bind Hd. Tapping-2, +M2.6x8	1
MZ13	143 3 1202 00818	Screw, Flat Hd. Tapping-B, +M2.0x8	2
MZ14	143 3 1702 00618	Screw, Bind Hd. Tapping-B, +M2.0x6	12
MZ15	143 3 1702 00818	Screw, Bind Hd. Tapping-B, +M2.0x8	7
MZ16	143 3 1702 60611	Screw, Bind Hd. Tapping-B, +M2.6x6	4
MZ17	143 3 1702 60818	Screw, Bind Hd. Tapping-B, +M2.6x8	8
MZ18	112 3 1301 20082	E Ring, M1.2	3
MZ19	112 3 1302 00082	E Ring, M2.0	2
MZ20	112 3 1303 00082	E Ring, M3.0	2
MZ21	110 3 3202 60011	Ext. Star Washer, M2.6	1
	DECK 1 ONLY		
MC93	4 2422 00231	Erase Head Dummy	1
MC94	4 2429 72340	Play Head [HD1]	1
MC95	4 2649 70490	ASF Solenoid [SL3]	1
MC96	131 2 3101 96300	Metal Mount	1

MECHANISM PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
MC97	141 2 3519 70400	Bracket PCB	1
MC98	141 2 8529 14300	Spring Seesaw	1
MC99	141 2 8549 04400	Spring Interlock	1
MC100	141 2 7419 81500	Lever Lock Button	1
MC101	141 2 7419 82700	Lever Plunger	1
MC102	141 2 5529 17000	Spindle Lever	1
	DECK 2 ONLY		
MC103	141 2 8419 11700	Interlock Lever	1
MC104	141 2 4539 17500	Washer	1
MC105	141 2 8259 11100	Roller REC	1
MC106	141 0 7419 36900	Lever REC Base Assy	1
MC107	4 2429 71880	Erase Head [HD3]	1
MC108	4 2429 72350	R/P Head [HD2]	1
MC109	141 2 3529 18102	Spacer Head	1
MC110	141 2 8549 05500	Spring Lever Stop	1
MC111	141 2 4219 23000	Screw	1
MC112	141 2 7419 81200	Lever REC Select	1
MC113	141 2 7419 81400	Arm Record	1
MC114	141 2 8419 14900	Lever R/P Switch	1
MC115	141 2 7539 61600	Post Lever R/P Switch	1
MC116	141 2 3659 20400	Bracket Switch	1
MC117	4 2319 74170	Leaf Switch (RECORD) [SW14]	1
MC118	4 2319 74360	Leaf Switch (OSC) [SW13]	1
MC119	141 2 7419 80900	Lever Spring Stop Record	1
MC120	141 2 7419 80400	Lever Lock Record	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

CASSETTE DECK ELECTRICAL ADJUSTMENTS

BEFORE ADJUSTMENT

If the tape surface whitch contacts the head, the capstan, and the pinch roller, etc., is stained, it will cause unstable running of the tape, wow and flutter, imperfect recording and erasing, deterioration of tonal quality, and the tape jam around the capstan, etc. Occasionally clean each part as follows;

1. Cut off power.
2. Open the cassette lid.
3. Wipe the head, the capstan, and the pinch roller wiht a cotton swab. If they are excessively stained, clean them with the swab soaked in absolute alcohol or cleaning liquid on the market.

MEASURING INSTRUMENTS REQUIRED

- Dualtrace Oscilloscope
- AC VTVM (AC voltmeter with high impedance)
- Dummy Load (47kΩ)
- Frequency Counter
- Signal Oscillator
- Test Tapes
  - ‡ 10kHz Test Tape (Example: TEAC MTT-114) for Azimuth Adjustment
  - ‡ 3kHz Test Tape (Example: TEAC MTT-111) for Tape Speed Adjustment
  - ‡ 1.5kHz Test Tape (Example: A.BEX TCW-211) for Tape Speed Adjustment
  - ‡ Test Taped (Example: TEAC MTT-150) for Playback sensitivity Adjustment
- Test Tapes for Recording and Playback Operations
  - ‡ CrO_2 Tape (Example: TDK AC 512)
  - ‡ Normal Tape (Example: TDK AC 223)
  - ‡ Metal Tape (Example: TDK AC 711)

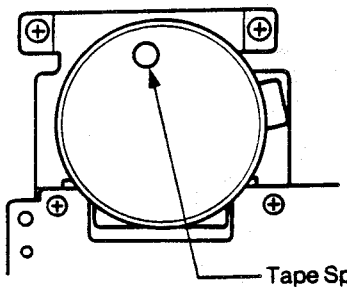
SWITCH POSITIONS

Unless especially indicated, set each switch as follows;

SPEED Switch ..... NORMAL
DOLBY NR Switch ..... OFF
SYNCHRO START Switch ..... SEQ. PLAY

NORMAL TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47kΩ) and the frequency counter to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: TEAC MTT-111) and set it in the playback mode.
3. Adjust the potentiometer inside the capstan drive motor, so that the output becomes 3000Hz ±10Hz.
4. Perform the same adjustment for Deck 2.



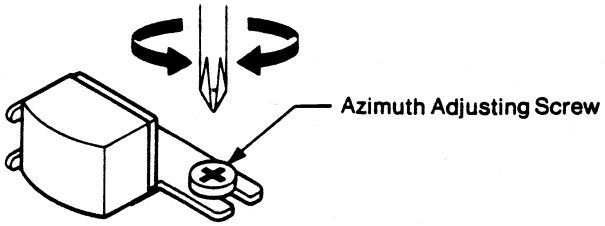
DOUBLE TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47kΩ) and the frequency counter to the LINE OUT terminal L.
2. Short-circuit Wrapper Pins RT5 and RT6.
3. Load Deck 1 with a test tape (Example: A.BEX TCW-211) and set it in the playback mode.
4. Adjust P301, so that the output frequency becomes 3000Hz ±10Hz.
5. Adjust P302 for Deck 2 with the same method as described in item 3 and 4.
   Note: When the adjustment is performed on Deck 1, se Deck 2 in the stop mode, and vice versa.

CASSETTE DECK ELECTRICAL ADJUSTMENTS (Continued)

HEAD AZIMUTH ADJUSTMENT

1. Connect the dummy load (47kΩ) and the dualtrace oscilloscope to the LINE OUT terminals L and R.
2. Load Deck 1 with a test tape (Example: TEAC MTT-114) and set it in the playback mode.
3. Adjust the azimuth adjustment screw, so that the wave forms become maximum on the oscilloscope and the right wave form overlaps with the left one.
4. Perform the same adjustment for Deck 2.



PLAYBACK SENSITIVITY ADJUSTMENT

1. Conncet the dummy load (47kΩ) and AC VTVM to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
3. Adjust P101, so that the output of LINE OUT becomes 500mV.
4. Connect AC VTVM to the LINE OUT terminal R and adjust P201, so that the output becomes 500mV.
5. Load Deck 2 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
6. Adjust P103 (L) and P203 (R) in the same method as explained on Deck 1, so that the output becomes 500mV.
   Note:
   As this adjustment is affected by the semi-fixed potentiometer on the other deck, perform the adjustment several times until the optimum result is obtained.

BIAS FREQUENCY ADJUSTMENT

1. Connect a frequency counter to TP1 through a resistor 100kΩ.
2. Load Deck 2 with a metal tape (Example: TDK AC711).
3. Confirm that the Tape Select Indicator is set to "METAL" and set Tape 2 in the Recording/Pause mode.
4. Adjust L302, so that the output frequency becomes 105kHz.

BIAS ADJUSTMENT

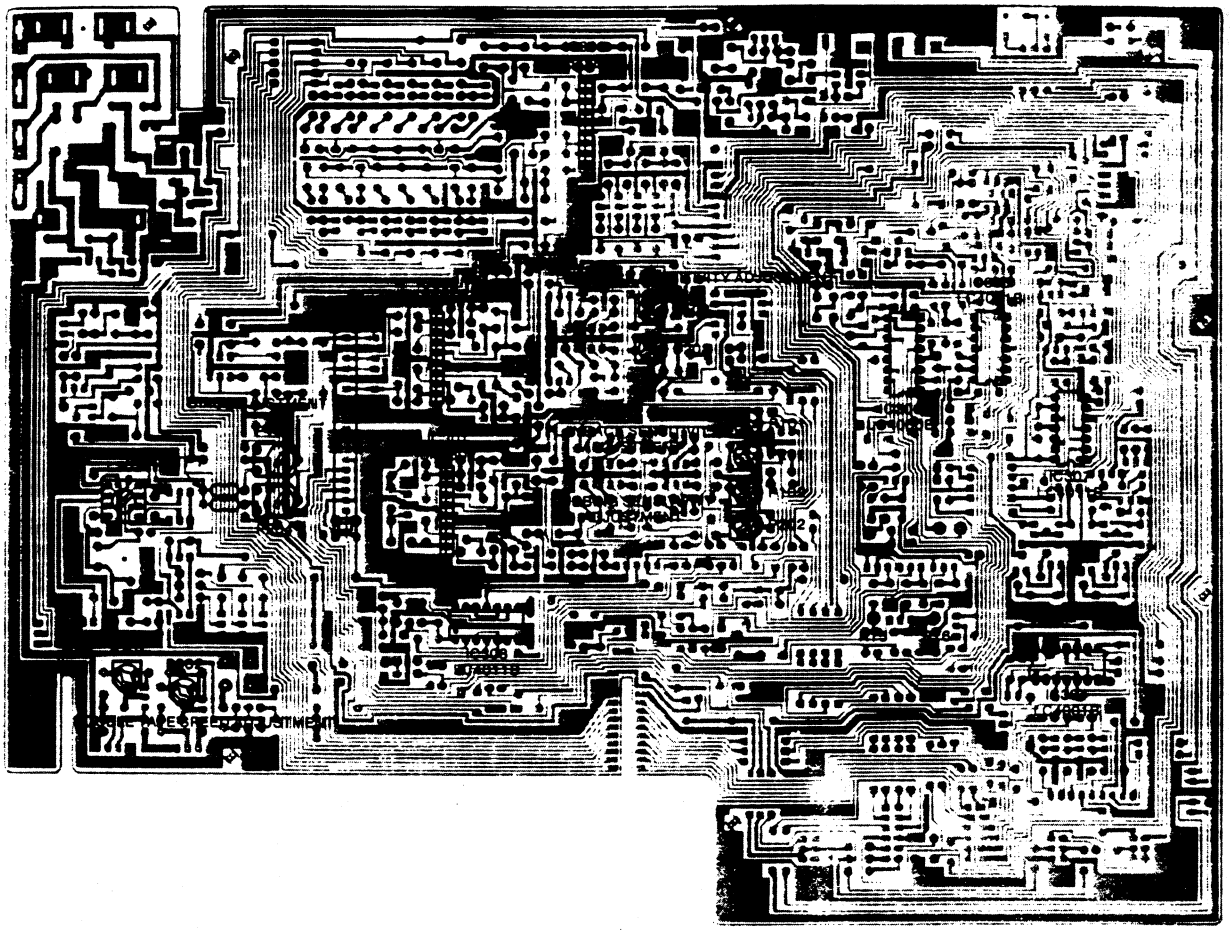
1. Connect the low frequency oscillator to the L side of the LINE IN terminal, and the dummy load (47kΩ) and AC VTVM to the L side of the LINE OUT terminal.
2. Load Deck 2 with a normal tape (Example: TDK AC223) and set it in the recording mode.
3. Set the Input Level volume control to the maximum position and feed the signals of 1kHz and 12kHz at 7mV from the frequency oscillator into the unit. Then, record the signals on the tape.
4. Play back the recorded signals adjust P104, so that the difference in output of the 1kHz and 12kHz signals become ±0.5dB.
5. Adjust P204 for the R side by following the same procedures as described for the L side.

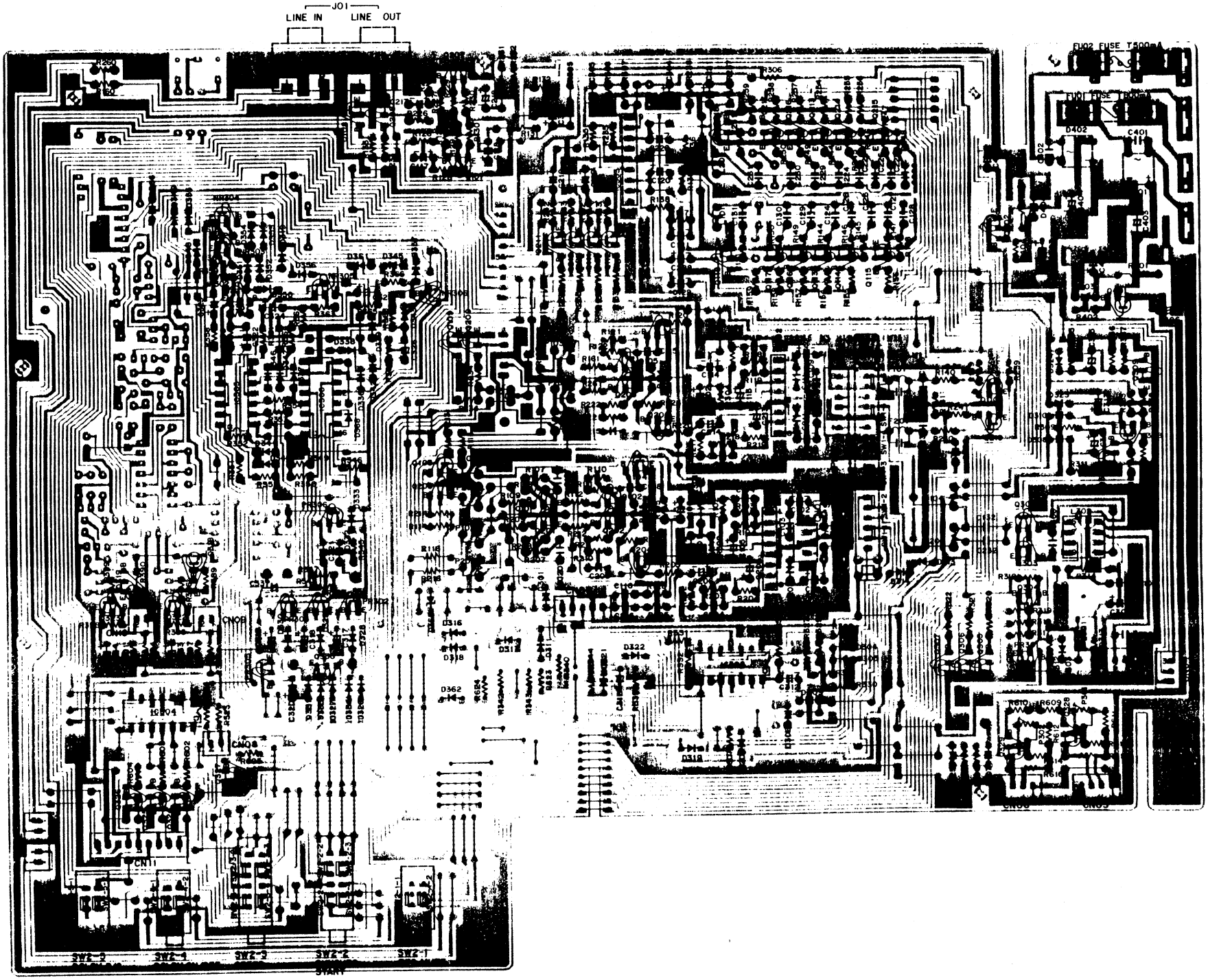
DUBBING SENSITIVITY ADJUSTMENT

1. Set the SYNCHRO START switch to "DUBBING".
2. Connect AC VTVM to the L side of the LINE OUT terminal.
3. Load Deck 1 with a test tape (Example: TEAC MTT-150). Set Deck 1 in the playback mode and Deck 2 in the recording mode.
4. Adjust P102, so that the output of LINE OUT becomes 500mV.
5. Follow the same procedures for the R side as described for the L side and adjust P202, so that the output of LINE OUT becomes 500mV.

AMPLIFIER P.C.BOARD ALIGNMENT POINTS

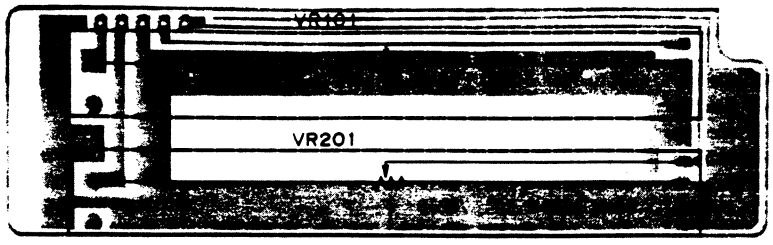
(TOP VIEW)




J01
LINE IN
LINE OUT
FU02 FUSE T500mA
FU01 FUSE T800mA
D402
C401
R306
IC304
CN01
SW2-2
SW2-1
SW2-3
SW2-2
SW2-1
START

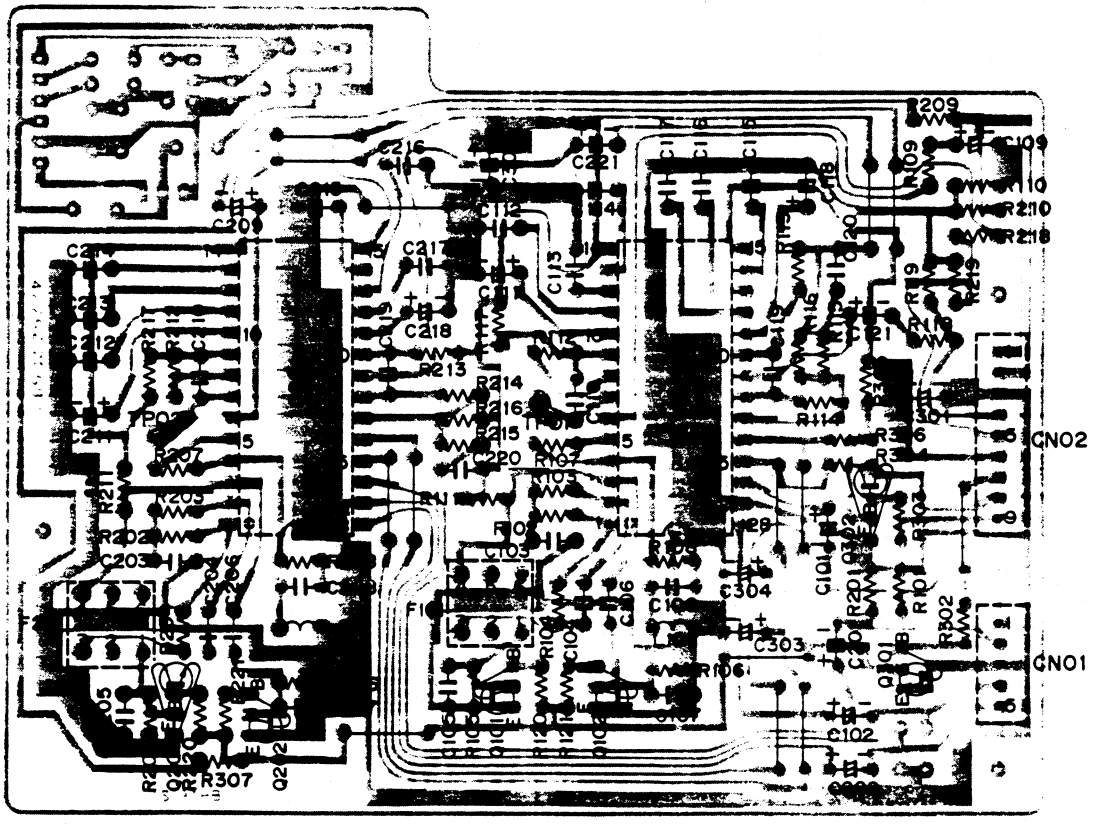
REC VOLUME P.C.BOARD

(BOTTOM VIEW)



DOLBY C P.C.BOARD

(BOTTOM VIEW)

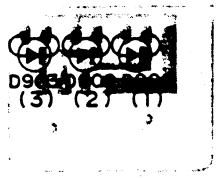


TRANSISTOR DC VOLTAGES				
SYMBOL No.	DEVICE	B	C	E
Q101,201	2SC536	0.7V	0V	0V
Q102,202	2SC536	0.7V	0V	0V
Q301	2SC536	0V	3.1V	0V
Q302	2SC536	0.7V	0V	0V

IC PIN NUMBERS DC VOLTAGES																					
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC101,201	TEA0665	8.4V	8.4V	8.4V	8.4V	8.4V	8.3V	8.4V	8.5V	8.5V	8.5V	8.5V	0.8V	0.8V	0.8V	8.5V	16.9V	0.8V	0.8V	8.5V	8.4V
		21	22	23	24	25	26	27	28												
		8.6V	8.6V	8.6V	0.1V	0.2V	8.4V	0V	8.3V												

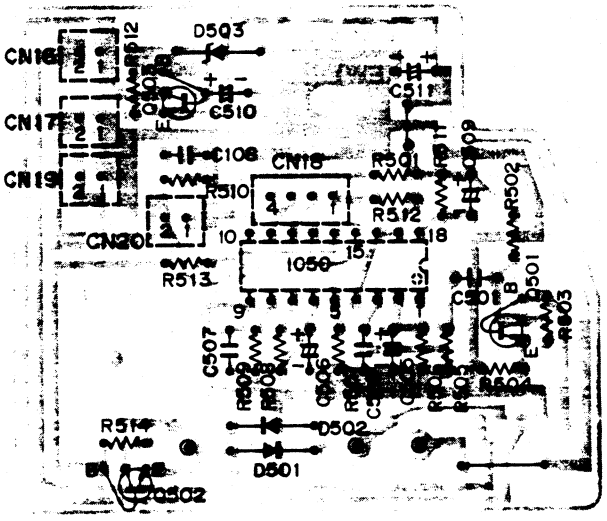
ASF LED P.C.BOARD

(BOTTOM VIEW)



ASF P.C.BOARD

(BOTTOM VIEW)

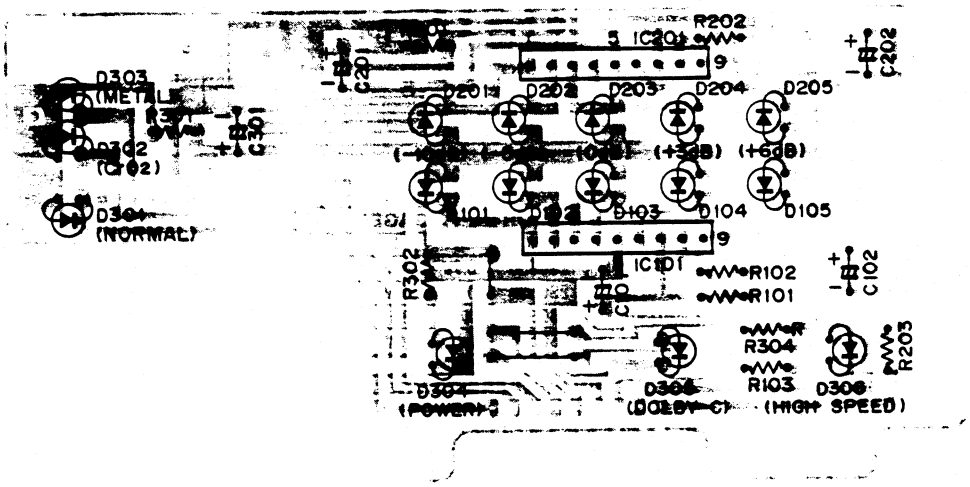


TRANSISTOR DC VOLTAGES				
SYMBOL No.	DEVICE	B	C	E
Q501	2SC536	0.9V	2.1V	0.3V
Q502	2SC3331	0V	0V	0V
Q503	2SC3331	8.3V	12.1V	7.7V

IC PIN NUMBERS DC VOLTAGES																		
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IC501	LC7510	–	1.8V	1.5V	7.7V	0.2V	0V	0V	0V	0V	7.7V	7.7V	7.7V	–	0V	0V	7.7V	7.7V	0V

LED METER P.C.BOARD

(BOTTOM VIEW)



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	AMPLIFIER P.C.B. ASSY		
PCB1	141 0 1939 07272	Amplifier P.C.B. Assy	1
	4 2359 77678	Connector 9P Assy	1
	4 2359 77679	Connector 5P Assy	1
	4 2369 70740	Pin RT	9
	⚠ 4 2352 01940	Fuse Clip	4
	4 2372 00830	EC Terminal 1P	4
	111 2 6220 11100	Wire Wrap Terminal	2
	131 2 6201 21500	Plate Heat Sink (for Q401)	1
	131 2 6201 28000	Plate Heat Sink (for Q402)	1
	131 2 9800 01907	Jumper	1
	143 3 1903 00811	Screw, Brazier Hd. Tapping-B, +M3.0x8	2
CN1	4 2369 73130	Connector 3P	1
CN2	4 2369 73160	Connector 6P	1
CN3	4 2362 00770	Plug 2P	1
CN4	4 2369 73130	Connector 3P	1
CN5	4 2369 73140	Connector 4P	1
CN6	4 2369 73140	Connector 4P	1
CN7	4 2369 73150	Connector 5P	1
CN8	4 2362 00770	Plug 2P	1
CN9	4 2362 00770	Plug 2P	1
CN10	4 2362 00770	Plug 2P	1
CN11	4 2369 73690	Plug 9P	1
CN12	4 2369 73150	Connector 5P	1
SW1	4 2319 77470	Slide Switch (Record/Play)	1
SW2	4 2319 77460	Select Switch	1
J1	4 2359 75361	4P Pin Jack (LINE)	1
J2	4 2352 01730	Jack 3P (Auto Function)	1
L101	4 2729 70750	Coil (10mH)	1
L201	4 2729 70750	Coil (10mH)	1
L301	4 2532 00040	Choke Coil (1mH)	1
L302	4 2589 72273	Bias OSC Coil	1
FU1	⚠ 4 2349 70210	Fuse (T 800mA)	1
FU2	⚠ 4 2349 70040	Fuse (T 500mA)	1
F101	4 2529 70270	Bias Trap	1
F201	4 2529 70270	Bias Trap	1
P101	4 2229 74120	Semi Fixed (B-20kΩ)	1
P102	4 2229 74120	Semi Fixed (B-20kΩ)	1
P103	4 2229 74120	Semi Fixed (B-20kΩ)	1
P104	4 2229 72971	Potentiometer (B-100kΩ)	1
P201	4 2229 74120	Semi Fixed (B-20kΩ)	1
P202	4 2229 74120	Semi Fixed (B-20kΩ)	1
P203	4 2229 74120	Semi Fixed (B-20kΩ)	1
P204	4 2229 72971	Potentiometer (B-100kΩ)	1
P301	4 2229 74220	Semi Fixed (B-200Ω)	1
P302	4 2229 74220	Semi Fixed (B-200Ω)	1
NR302	4 2039 72010	Degitra DTC 124S	1
NR303	4 2039 72010	Degitra DTC 124S	1
NR304	4 2039 72010	Degitra DTC 124S	1
NR305	4 2039 72010	Degitra DTC 124S	1
NR306	4 2039 72010	Degitra DTC 124S	1
PR301	4 2039 72020	Degitra DTA 124S	1
PR302	4 2039 72020	Degitra DTA 124S	1
PR303	4 2039 72020	Degitra DTA 124S	1
PR304	4 2039 72020	Degitra DTA 124S	1
PR305	4 2039 72020	Degitra DTA 124S	1
PR306	4 2039 72020	Degitra DTA 124S	1
IC301	4 2069 71870	IC, BA 3302	1
IC302	4 2069 71870	IC, BA 3302	1
IC303	206 5 3266 45810	IC, LA 6458 DS	1
IC304	206 5 9454 00110	IC, LC 4001 B	1
IC305	206 5 9504 01110	IC, LC 4011 B	1
IC306	206 5 7854 05010	IC, LC 4050 B	1
IC308	206 5 9504 01110	IC, LC 4011 B	1

Ref. No.	Part No.	Description	Q'ty
Q101	203 5 5100 53660	Transistor, 2SC 536	1
Q102	203 5 5100 53660	Transistor, 2SC 536	1
Q103	203 5 5083 33160	Transistor, 2SC 3331	1
Q104	203 5 4921 01260	Transistor, 2SD 1012	1
Q105	203 5 5100 53660	Transistor, 2SC 536	1
Q106	203 5 5083 33160	Transistor, 2SC 3331	1
Q107	203 5 5083 33160	Transistor, 2SC 3331	1
Q108	203 5 5083 33160	Transistor, 2SC 3331	1
Q109	203 5 5083 33160	Transistor, 2SC 3331	1
Q110	203 5 4921 01260	Transistor, 2SD 1012	1
Q111	203 5 5100 53660	Transistor, 2SC 536	1
Q112	203 5 5100 53660	Transistor, 2SC 536	1
Q113	203 5 5100 53660	Transistor, 2SC 536	1
Q114	203 5 5100 53660	Transistor, 2SC 536	1
Q115	203 5 5100 53660	Transistor, 2SC 536	1
Q116	203 5 5100 53660	Transistor, 2SC 536	1
Q117	203 5 5100 53660	Transistor, 2SC 536	1
Q118	203 5 5100 53660	Transistor, 2SC 536	1
Q201	203 5 5100 53660	Transistor, 2SC 536	1
Q202	203 5 5100 53660	Transistor, 2SC 536	1
Q203	203 5 5083 33160	Transistor, 2SC 3331	1
Q204	203 5 4921 01260	Transistor, 2SD 1012	1
Q205	203 5 5100 53660	Transistor, 2SC 536	1
Q206	203 5 5083 33160	Transistor, 2SC 3331	1
Q207	203 5 5083 33160	Transistor, 2SC 3331	1
Q208	203 5 5083 33160	Transistor, 2SC 3331	1
Q209	203 5 5083 33160	Transistor, 2SC 3331	1
Q210	203 5 4921 01260	Transistor, 2SD 1012	1
Q211	203 5 5100 53660	Transistor, 2SC 536	1
Q212	203 5 5100 53660	Transistor, 2SC 536	1
Q213	203 5 5100 53660	Transistor, 2SC 536	1
Q214	203 5 5100 53660	Transistor, 2SC 536	1
Q215	203 5 5100 53660	Transistor, 2SC 536	1
Q216	203 5 5100 53660	Transistor, 2SC 536	1
Q217	203 5 5100 53660	Transistor, 2SC 536	1
Q218	203 5 5100 53660	Transistor, 2SC 536	1
Q301	203 5 5100 53660	Transistor, 2SC 536	1
Q302	203 5 5083 33160	Transistor, 2SC 3331	1
Q303	203 5 5083 33160	Transistor, 2SC 3331	1
Q304	203 5 6900 40060	Transistor, 2SD 400	1
Q305	203 5 5100 53660	Transistor, 2SC 536	1
Q306	203 5 5100 53660	Transistor, 2SC 536	1
Q307	203 5 5100 53660	Transistor, 2SC 536	1
Q308	203 5 7200 60850	Transistor, 2SA 608	1
Q309	203 5 5100 53660	Transistor, 2SC 536	1
Q318	203 5 5100 53660	Transistor, 2SC 536	1
Q319	203 5 5100 53660	Transistor, 2SC 536	1
Q322	203 5 4800 89287	Transistor, 2SB892	1
Q323	203 5 4800 89287	Transistor, 2SB892	1
Q324	203 5 5100 53660	Transistor, 2SC 536	1
Q325	203 5 5100 53660	Transistor, 2SC 536	1
Q326	203 5 5100 53660	Transistor, 2SC 536	1
Q327	203 5 5100 53660	Transistor, 2SC 536	1
Q328	203 5 4921 01260	Transistor, 2SD 1012	1
Q329	203 5 4921 01260	Transistor, 2SD 1012	1
Q330	203 5 5100 53660	Transistor, 2SC 536	1
Q401	4 2039 70600	Transistor, 2SC 1846	1
Q402	4 2039 70600	Transistor, 2SC 1846	1
D301	4 2029 71440	Diode, 1SS 95	1
D302	202 5 3210 05611	Zener Diode, GZA5.6X	1
D303	4 2029 71440	Diode, 1SS 95	1
D304	4 2029 71440	Diode, 1SS 95	1
D305	4 2029 71440	Diode, 1SS 95	1
D306	4 2029 71440	Diode, 1SS 95	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description			Q'ty
D307	4 2029 71440	Diode, 1SS 95			1
D308	4 2029 71440	Diode, 1SS 95			1
D309	4 2029 71440	Diode, 1SS 95			1
D310	4 2029 71440	Diode, 1SS 95			1
D311	4 2029 71440	Diode, 1SS 95			1
D313	4 2029 71440	Diode, 1SS 95			1
D314	4 2029 71440	Diode, 1SS 95			1
D316	4 2029 71440	Diode, 1SS 95			1
D317	4 2029 71440	Diode, 1SS 95			1
D318	4 2029 71440	Diode, 1SS 95			1
D319	4 2029 71440	Diode, 1SS 95			1
D320	4 2029 71440	Diode, 1SS 95			1
D321	4 2029 71440	Diode, 1SS 95			1
D322	4 2029 71440	Diode, 1SS 95			1
D323	4 2029 71440	Diode, 1SS 95			1
D324	4 2029 71440	Diode, 1SS 95			1
D325	4 2029 71440	Diode, 1SS 95			1
D326	4 2029 71440	Diode, 1SS 95			1
D327	4 2029 71440	Diode, 1SS 95			1
D328	4 2029 71440	Diode, 1SS 95			1
D329	4 2029 71440	Diode, 1SS 95			1
D330	4 2029 71440	Diode, 1SS 95			1
D331	4 2029 71440	Diode, 1SS 95			1
D332	4 2029 71440	Diode, 1SS 95			1
D333	4 2029 71440	Diode, 1SS 95			1
D334	4 2029 71440	Diode, 1SS 95			1
D335	4 2029 71440	Diode, 1SS 95			1
D336	4 2029 71440	Diode, 1SS 95			1
D337	4 2029 71440	Diode, 1SS 95			1
D338	4 2029 71440	Diode, 1SS 95			1
D339	4 2029 71440	Diode, 1SS 95			1
D340	4 2029 71440	Diode, 1SS 95			1
D341	4 2029 71440	Diode, 1SS 95			1
D342	4 2029 71440	Diode, 1SS 95			1
D343	4 2029 71440	Diode, 1SS 95			1
D345	4 2029 71440	Diode, 1SS 95			1
D346	4 2029 71440	Diode, 1SS 95			1
D347	4 2029 71440	Diode, 1SS 95			1
D348	4 2029 71440	Diode, 1SS 95			1
D349	4 2029 71440	Diode, 1SS 95			1
D350	4 2029 71440	Diode, 1SS 95			1
D351	4 2029 71440	Diode, 1SS 95			1
D352	4 2029 71440	Diode, 1SS 95			1
D353	4 2029 71440	Diode, 1SS 95			1
D354	4 2029 71440	Diode, 1SS 95			1
D355	4 2029 71440	Diode, 1SS 95			1
D356	4 2029 71440	Diode, 1SS 95			1
D357	4 2029 71440	Diode, 1SS 95			1
D361	4 2029 71440	Diode, 1SS 95			1
D362	4 2029 71440	Diode, 1SS 95			1
D364	202 5 3210 05611	Zener Diode, GZA5.6X			1
D365	202 5 3210 05611	Zener Diode, GZA5.6X			1
D366	4 2029 71440	Diode, 1SS 95			1
D368	4 2029 71440	Diode, 1SS 95			1
D401	202 5 1330 01010	Bridge Diode, DBB10C			1
D402	202 5 1330 01010	Bridge Diode, DBB10C			1
D403	202 5 3210 12013	Zener Diode, GZA 12Z			1
D404	202 5 3210 20013	Zener Diode, GZA 20Z			1
C101	CC2 7 1500 KD00C	Ceramic	270pF	50V ±10%	1
C102	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C103	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C104	CM2 7 3500 K00SV	Mylar	0.027μF	50V ±10%	1
C105	CD2 2 763A 0006V	Electrolytic	220μF	6.3V	1
C106	CD1 0 6250 0001V	Electrolytic	10μF	25V	1

Ref. No.	Part No.	Description			Q'ty
C107	CM2 2 3500 K00SV	Mylar	0.022μF	50V ±10%	1
C108	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C109	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C110	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C111	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C112	CM2 7 3500 K00SV	Mylar	0.027μF	50V ±10%	1
C113	CD2 2 763A 0006V	Electrolytic	220μF	6.3V	1
C114	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C115	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C116	CM6 8 2500 K00SV	Mylar	0.0068μF	50V ±10%	1
C117	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C118	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C119	CD4 7 5500 0001V	Electrolytic	4.7μF	50V	1
C120	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C121	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C122	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C123	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C124	CM1 0 3500 K00SV	Mylar	0.01μF	50V ±10%	1
C125	CM8 2 2500 K00SV	Mylar	0.0082μF	50V ±10%	1
C126	CM1 2 2500 K00SV	Mylar	0.0012μF	50V ±10%	1
C127	CM6 8 2500 K00SV	Mylar	0.0068μF	50V ±10%	1
C128	CM1 0 2500 K00SV	Mylar	0.001μF	50V ±10%	1
C129	CM3 3 2500 K00SV	Mylar	0.0033μF	50V ±10%	1
C130	CM2 7 2500 K00SV	Mylar	0.0027μF	50V ±10%	1
C131	CM2 2 2500 K00SV	Mylar	0.0022μF	50V ±10%	1
C132	CC2 2 1500 KE00R	Ceramic	220pF	50V ±10%	1
C201	CC2 7 1500 KD00C	Ceramic	270pF	50V ±10%	1
C202	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C203	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C204	CM2 7 3500 K00SV	Mylar	0.027μF	50V ±10%	1
C205	CD2 2 763A 0006V	Electrolytic	220μF	6.3V	1
C206	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C207	CM2 2 3500 K00SV	Mylar	0.022μF	50V ±10%	1
C208	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C209	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C210	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C211	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C212	CM2 7 3500 K00SV	Mylar	0.027μF	50V ±10%	1
C213	CD2 2 763A 0006V	Electrolytic	220μF	6.3V	1
C214	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C215	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C216	CM6 8 2500 K00SV	Mylar	0.0068μF	50V ±10%	1
C217	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C218	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C219	CD4 7 5500 0001V	Electrolytic	4.7μF	50V	1
C220	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C221	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C222	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C223	CC4 7 1500 KD00C	Ceramic	470pF	50V ±10%	1
C224	CM1 0 3500 K00SV	Mylar	0.01μF	50V ±10%	1
C225	CM8 2 2500 K00SV	Mylar	0.0082μF	50V ±10%	1
C226	CM1 2 2500 K00SV	Mylar	0.0012μF	50V ±10%	1
C227	CM6 8 2500 K00SV	Mylar	0.0068μF	50V ±10%	1
C228	CM1 0 2500 K00SV	Mylar	0.001μF	50V ±10%	1
C229	CM3 3 2500 K00SV	Mylar	0.0033μF	50V ±10%	1
C230	CM2 7 2500 K00SV	Mylar	0.0027μF	50V ±10%	1
C231	CM2 2 2500 K00SV	Mylar	0.0022μF	50V ±10%	1
C232	CC2 2 1500 KE00R	Ceramic	220pF	50V ±10%	1
C301	CD1 0 7160 0006V	Electrolytic	100μF	16V	1
C302	CD1 0 7160 0006V	Electrolytic	100μF	16V	1
C303	CD1 0 7250 0006V	Electrolytic	100μF	25V	1
C304	CD4 7 6250 0001V	Electrolytic	47μF	25V	1
C305	CD2 2 6160 0001V	Electrolytic	22μF	16V	1
C306	CD1 0 6250 0001V	Electrolytic	10μF	25V	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description			Q'ty
C307	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C308	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C309	CP8 2 2101 J003V	Polypropylen	0.0082μF	100V ±5%	1
C310	CM1 8 3500 K00SV	Mylar	0.018μF	50V ±10%	1
C312	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C313	CD1 0 8250 0006V	Electrolytic	1000μF	25V	1
C315	CD4 7 6250 0006V	Electrolytic	47μF	25V	1
C316	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C317	CD4 7 5160 0001V	Electrolytic	4.7μF	16V	1
C318	CD4 7 4500 0001V	Electrolytic	0.47μF	50V	1
C319	CD4 7 5160 0001V	Electrolytic	4.7μF	16V	1
C320	CD1 0 4500 0001V	Electrolytic	0.1μF	50V	1
C321	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C322	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C323	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C324	CD4 7 6250 0006V	Electrolytic	47μF	25V	1
C325	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C326	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C333	CD4 7 7250 0006V	Electrolytic	470μF	25V	1
C334	CD4 7 7250 0006V	Electrolytic	470μF	25V	1
C337	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C401	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C402	CC2 2 3500 ZG00C	Ceramic	0.022μF	50V +80,-20%	1
C403	CD2 2 8250 0006V	Electrolytic	2200μF	25V	1
C404	CD1 0 8350 0006V	Electrolytic	1000μF	35V	1
C405	CD4 7 7160 0006V	Electrolytic	470μF	16V	1
C406	CD4 7 7160 0006V	Electrolytic	470μF	16V	1
C407	CD4 7 7250 0006V	Electrolytic	470μF	25V	1
C408	CD4 7 7250 0006V	Electrolytic	470μF	25V	1
R102	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R103	RP1 5 4121 JH000	Carbon	150kΩ	1/8W ±5%	1
R104	RP3 3 0121 JH000	Carbon	33Ω	1/8W ±5%	1
R105	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R107	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R108	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R109	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R110	RP3 9 2121 JH000	Carbon	3.9kΩ	1/8W ±5%	1
R111	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R112	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R113	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R114	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R115	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R116	RD1 0 3251 JM000	Carbon	10kΩ	1/4W ±5%	1
R117	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R118	RP1 5 4121 JH000	Carbon	150kΩ	1/8W ±5%	1
R119	RP3 3 0121 JH000	Carbon	33Ω	1/8W ±5%	1
R120	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R121	RP3 9 2121 JH000	Carbon	3.9kΩ	1/8W ±5%	1
R122	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R123	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R124	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R125	RP5 6 3121 JH000	Carbon	56kΩ	1/8W ±5%	1
R126	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R127	RP1 0 4121 JH000	Carbon	100kΩ	1/8W ±5%	1
R128	RP1 8 3121 JH000	Carbon	18kΩ	1/8W ±5%	1
R129	RD6 8 1251 JN000	Carbon	680Ω	1/4W ±5%	1
R130	RP8 2 0121 JH000	Carbon	82Ω	1/8W ±5%	1
R131	RD6 8 0251 JS000	Carbon	68Ω	1/4W ±5%	1
R132	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R133	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R134	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R135	RP2 7 3121 JH000	Carbon	27kΩ	1/8W ±5%	1
R136	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R137	RP3 9 3121 JH000	Carbon	39kΩ	1/8W ±5%	1
R138	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R139	RP1 2 2121 JH000	Carbon	1.2kΩ	1/8W ±5%	1
R140	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R141	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R142	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R143	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R144	RP3 3 1121 JH000	Carbon	330Ω	1/8W ±5%	1
R145	RP3 3 1121 JH000	Carbon	330Ω	1/8W ±5%	1
R146	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R147	RP4 7 1121 JH000	Carbon	470Ω	1/8W ±5%	1
R148	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R149	RP3 9 1121 JH000	Carbon	390Ω	1/8W ±5%	1
R150	RP8 2 1121 JH000	Carbon	820Ω	1/8W ±5%	1
R151	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1
R152	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R153	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R154	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R155	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R156	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R157	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R158	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R159	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R160	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R161	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R202	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R203	RP1 5 4121 JH000	Carbon	150kΩ	1/8W ±5%	1
R204	RP3 3 0121 JH000	Carbon	33Ω	1/8W ±5%	1
R205	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R207	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R208	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R209	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R210	RP3 9 2121 JH000	Carbon	3.9kΩ	1/8W ±5%	1
R211	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R212	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R213	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R214	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R215	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R216	RD1 0 3251 JM000	Carbon	10kΩ	1/4W ±5%	1
R217	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R218	RP1 5 4121 JH000	Carbon	150kΩ	1/8W ±5%	1
R219	RP3 3 0121 JH000	Carbon	33Ω	1/8W ±5%	1
R220	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R221	RP3 9 2121 JH000	Carbon	3.9kΩ	1/8W ±5%	1
R222	RP2 2 4121 JH000	Carbon	220kΩ	1/8W ±5%	1
R223	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R224	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R225	RP5 6 3121 JH000	Carbon	56kΩ	1/8W ±5%	1
R226	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R227	RP1 0 4121 JH000	Carbon	100kΩ	1/8W ±5%	1
R228	RP1 8 3121 JH000	Carbon	18kΩ	1/8W ±5%	1
R229	RD6 8 1251 JN000	Carbon	680Ω	1/4W ±5%	1
R230	RP8 2 0121 JH000	Carbon	82Ω	1/8W ±5%	1
R231	RD6 8 0251 JS000	Carbon	68Ω	1/4W ±5%	1
R232	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R233	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R234	RP1 2 3121 JH000	Carbon	12kΩ	1/8W ±5%	1
R235	RP2 7 3121 JH000	Carbon	27kΩ	1/8W ±5%	1
R236	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R237	RP3 9 3121 JH000	Carbon	39kΩ	1/8W ±5%	1
R238	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R239	RP1 2 2121 JH000	Carbon	1.2kΩ	1/8W ±5%	1
R240	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R241	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1
R242	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description				Q'ty
R243	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W	±5%	1
R244	RP3 3 1121 JH000	Carbon	330Ω	1/8W	±5%	1
R245	RP3 3 1121 JH000	Carbon	330Ω	1/8W	±5%	1
R246	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W	±5%	1
R247	RP4 7 1121 JH000	Carbon	470Ω	1/8W	±5%	1
R248	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W	±5%	1
R249	RP3 9 1121 JH000	Carbon	390Ω	1/8W	±5%	1
R250	RP8 2 1121 JH000	Carbon	820Ω	1/8W	±5%	1
R251	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W	±5%	1
R252	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R253	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R254	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R255	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R256	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R257	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R258	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R259	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R260	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R261	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R301	RD1 0 2251 JM000	Carbon	1kΩ	1/4W	±5%	1
R302	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W	±5%	1
R303	RD1 0 2251 JM000	Carbon	1kΩ	1/4W	±5%	1
R304	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W	±5%	1
R305	RD4 7 0251 JS000	Carbon	47Ω	1/4W	±5%	1
R306	RD1 0 2251 JM000	Carbon	1kΩ	1/4W	±5%	1
R307	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R308	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R309	RP5 6 2121 JH000	Carbon	5.6kΩ	1/8W	±5%	1
R310	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R311	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R312	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R313	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R314	RP1 5 3121 JH000	Carbon	15kΩ	1/8W	±5%	1
R315	RD3 3 A251 JS000	Carbon	3.3Ω	1/4W	±5%	1
R316	RP1 0 2121 JH000	Carbon	1kΩ	1/8W	±5%	1
R317	RP5 6 1121 JH000	Carbon	560Ω	1/8W	±5%	1
R318	RP9 1 1121 JH000	Carbon	910Ω	1/8W	±5%	1
R319	RP3 9 2121 JH000	Carbon	3.9kΩ	1/8W	±5%	1
R320	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R321	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R322	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R323	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R324	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R325	RP3 9 4121 JH000	Carbon	390kΩ	1/8W	±5%	1
R326	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R327	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R328	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R329	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R330	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R331	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R332	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R333	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R334	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R335	RP3 9 3121 JH000	Carbon	39kΩ	1/8W	±5%	1
R336	RP3 3 3121 JH000	Carbon	33kΩ	1/8W	±5%	1
R337	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R338	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R339	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R340	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R342	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R343	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R344	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R345	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R346	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R347	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R348	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R349	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R350	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R351	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R352	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R353	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R354	RP1 0 4121 JH000	Carbon	100kΩ	1/8W	±5%	1
R355	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R356	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R357	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R358	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R359	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R360	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R361	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R362	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R363	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R364	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R365	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R366	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R367	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R368	RP4 7 3121 JH000	Carbon	47kΩ	1/8W	±5%	1
R389	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R390	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R393	RD1 0 2251 JM000	Carbon	1kΩ	1/4W	±5%	1
R394	RD1 0 2251 JM000	Carbon	1kΩ	1/4W	±5%	1
R395	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W	±5%	1
R396	RP5 6 1121 JH000	Carbon	560Ω	1/8W	±5%	1
R397	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R398	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W	±5%	1
R399	RP5 6 1121 JH000	Carbon	560Ω	1/8W	±5%	1
R401	RD3 3 1251 JS000	Carbon	330Ω	1/4W	±5%	1
R402	RP1 0 0121 JH000	Carbon	10Ω	1/8W	±5%	1
R403	RD5 6 1251 JS000	Carbon	560Ω	1/4W	±5%	1
R404	RP1 0 0121 JH000	Carbon	10Ω	1/8W	±5%	1
R601	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R602	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R603	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R604	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R605	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R606	RP8 2 2121 JH000	Carbon	8.2kΩ	1/8W	±5%	1
R607	RP8 2 2121 JH000	Carbon	8.2kΩ	1/8W	±5%	1
R608	RP4 7 4121 JH000	Carbon	470kΩ	1/8W	±5%	1
R609	RP2 7 3121 JH000	Carbon	27kΩ	1/8W	±5%	1
R610	RP2 7 3121 JH000	Carbon	27kΩ	1/8W	±5%	1
R611	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R612	RP1 0 1121 JH000	Carbon	100Ω	1/8W	±5%	1
R613	RP3 9 1121 JH000	Carbon	390Ω	1/8W	±5%	1
R614	RP3 9 1121 JH000	Carbon	390Ω	1/8W	±5%	1
R615	4 2219 70363	LT Resistor	1kΩ			1
R616	4 2219 70363	LT Resistor	1kΩ			1
R617	RH1 0 1501 JZ003	Metal	100Ω	1/2W	±5%	1
R618	RP1 0 3121 JH000	Carbon	10kΩ	1/8W	±5%	1
R623	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1
R624	RP2 2 3121 JH000	Carbon	22kΩ	1/8W	±5%	1

DOLBY C P.C.B. ASSY

PCB2	141 0 1939 07341	DOLBY C P.C.B. Assy	1
	111 2 6220 11100	Wire Wrap Terminal	3
	141 2 4729 04700	Staple 10	14
CN1	4 2369 73150	Connector 5P	1
CN2	4 2369 73690	Plug 9P	1
L101	4 2552 00640	AF Coil (36mH)	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description			Q'ty
L201	4 2552 00640	AF Coil (36mH)			1
F101	4 2539 71370	MPX Filter			1
F201	4 2539 71370	MPX Filter			1
IC101	4 2069 73340	IC, TEA0665			1
IC201	4 2069 73340	IC, TEA0665			1
Q101	203 5 5100 53660	Transistor, 2SC 536			1
Q102	203 5 5100 53660	Transistor, 2SC 536			1
Q201	203 5 5100 53660	Transistor, 2SC 536			1
Q202	203 5 5100 53660	Transistor, 2SC 536			1
Q301	203 5 5100 53660	Transistor, 2SC 536			1
Q302	203 5 5100 53660	Transistor, 2SC 536			1
C101	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C102	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C103	CC5 6 1500 KE00C	Ceramic	560pF	50V ±10%	1
C104	CC5 6 1500 KE00C	Ceramic	560pF	50V ±10%	1
C105	CM1 0 2500 K00SV	Mylar	0.001μF	50V ±10%	1
C106	CM3 9 2500 K00SV	Mylar	0.0039μF	50V ±10%	1
C107	CM1 2 2500 K00SV	Mylar	0.0012μF	50V ±10%	1
C108	CM1 8 2500 K00SV	Mylar	0.0018μF	50V ±10%	1
C109	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C110	CM4 7 2500 K00SV	Mylar	0.0047μF	50V ±10%	1
C111	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C112	CM4 7 3500 J00TV	Mylar	0.047μF	50V ±5%	1
C113	CM2 2 4500 J00TV	Mylar	0.22μF	50V ±5%	1
C114	CM6 8 4500 J00TV	Mylar	0.68μF	50V ±5%	1
C115	CM6 8 4500 J00TV	Mylar	0.68μF	50V ±5%	1
C116	CM2 2 4500 J00TV	Mylar	0.22μF	50V ±5%	1
C117	CM4 7 3500 J00TV	Mylar	0.047μF	50V ±5%	1
C118	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C119	CM4 7 2500 K00SV	Mylar	0.0047μF	50V ±10%	1
C120	CM1 0 3500 K00SV	Mylar	0.01μF	50V ±10%	1
C121	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C201	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C202	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C203	CC5 6 1500 KE00C	Ceramic	560pF	50V ±10%	1
C204	CC5 6 1500 KE00C	Ceramic	560pF	50V ±10%	1
C205	CM1 0 2500 K00SV	Mylar	0.001μF	50V ±10%	1
C206	CM3 9 2500 K00SV	Mylar	0.0039μF	50V ±10%	1
C207	CM1 2 2500 K00SV	Mylar	0.0012μF	50V ±10%	1
C208	CM1 8 2500 K00SV	Mylar	0.0018μF	50V ±10%	1
C209	CD2 2 5500 0001V	Electrolytic	2.2μF	50V	1
C210	CM4 7 2500 K00SV	Mylar	0.0047μF	50V ±10%	1
C211	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C212	CM4 7 3500 J00TV	Mylar	0.047μF	50V ±5%	1
C213	CM2 2 4500 J00TV	Mylar	0.22μF	50V ±5%	1
C214	CM6 8 4500 J00TV	Mylar	0.68μF	50V ±5%	1
C215	CM6 8 4500 J00TV	Mylar	0.68μF	50V ±5%	1
C216	CM2 2 4500 J00TV	Mylar	0.22μF	50V ±5%	1
C217	CM4 7 3500 J00TV	Mylar	0.047μF	50V ±5%	1
C218	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C219	CM4 7 2500 K00SV	Mylar	0.0047μF	50V ±10%	1
C220	CM1 0 3500 K00SV	Mylar	0.01μF	50V ±10%	1
C221	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C301	CD2 2 7250 0001V	Electrolytic	220μF	25V	1
C302	CD2 2 7100 0001V	Electrolytic	220μF	10V	1
C303	CD1 0 6250 0001V	Electrolytic	10μF	25V	1
C304	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
R101	RP6 8 4121 JH000	Carbon	680kΩ	1/8W ±5%	1
R102	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R103	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R104	RP2 4 2121 JH000	Carbon	2.4kΩ	1/8W ±5%	1
R105	RP1 0 5121 JH000	Carbon	1MΩ	1/8W ±5%	1
R106	RP1 0 5121 JH000	Carbon	1MΩ	1/8W ±5%	1
R107	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R108	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R109	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R110	RP1 5 3121 JH000	Carbon	15kΩ	1/8W ±5%	1
R111	RP5 6 2121 JH000	Carbon	5.6kΩ	1/8W ±5%	1
R112	RP3 3 3121 JH000	Carbon	33kΩ	1/8W ±5%	1
R113	RP8 2 3121 JH000	Carbon	82kΩ	1/8W ±5%	1
R114	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R115	RP5 1 2121 JH000	Carbon	5.1kΩ	1/8W ±5%	1
R116	RP6 8 3121 JH000	Carbon	68kΩ	1/8W ±5%	1
R117	RP8 2 3121 JH000	Carbon	82kΩ	1/8W ±5%	1
R118	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R119	RP2 7 2121 JH000	Carbon	2.7kΩ	1/8W ±5%	1
R120	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R121	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R201	RP6 8 4121 JH000	Carbon	680kΩ	1/8W ±5%	1
R202	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R203	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R204	RP2 4 2121 JH000	Carbon	2.4kΩ	1/8W ±5%	1
R205	RP1 0 5121 JH000	Carbon	1MΩ	1/8W ±5%	1
R206	RP1 0 5121 JH000	Carbon	1MΩ	1/8W ±5%	1
R207	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R208	RP1 0 2121 JH000	Carbon	1kΩ	1/8W ±5%	1
R209	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R210	RP1 5 3121 JH000	Carbon	15kΩ	1/8W ±5%	1
R211	RP5 6 2121 JH000	Carbon	5.6kΩ	1/8W ±5%	1
R212	RP3 3 3121 JH000	Carbon	33kΩ	1/8W ±5%	1
R213	RP8 2 3121 JH000	Carbon	82kΩ	1/8W ±5%	1
R214	RP2 2 2121 JH000	Carbon	2.2kΩ	1/8W ±5%	1
R215	RP5 1 2121 JH000	Carbon	5.1kΩ	1/8W ±5%	1
R216	RP6 8 3121 JH000	Carbon	68kΩ	1/8W ±5%	1
R217	RP8 2 3121 JH000	Carbon	82kΩ	1/8W ±5%	1
R218	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R219	RP2 7 2121 JH000	Carbon	2.7kΩ	1/8W ±5%	1
R220	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R221	RP4 7 2121 JH000	Carbon	4.7kΩ	1/8W ±5%	1
R302	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R303	RP2 2 3121 JH000	Carbon	22kΩ	1/8W ±5%	1
R304	RP3 3 2121 JH000	Carbon	3.3kΩ	1/8W ±5%	1
R305	RP8 2 3121 JH000	Carbon	82kΩ	1/8W ±5%	1
R306	RP1 8 3121 JH000	Carbon	18kΩ	1/8W ±5%	1
R307	RP6 8 2121 JH000	Carbon	6.8kΩ	1/8W ±5%	1

REC VOLUME P.C.B. ASSY

PCB3	141 0 1939 07280	REC Volume P.C.B. Assy	1
CN12	4 2359 77802	Connector 5P Assy	1
VR101	4 2229 75180	Slide Volume (A-50kΩ)	1
VR201	4 2229 75180	Slide Volume (A-50kΩ)	1

ASF LED P.C.B. ASSY

PCB4	141 0 1939 07290	ASF LED P.C.B. Assy	1
CN18	131 0 4006 31405	Cord Assy	1
D901	4 2029 73500	LED, SLP135B	1
D902	4 2029 73500	LED, SLP135B	1
D903	4 2029 73500	LED, SLP135B	1

LED METER P.C.B. ASSY

PCB5	141 0 1939 07300	LED Meter P.C.B. Assy	1
	131 2 4208 41300	Spacer(led)	3
	141 2 2719 18900	Holder LED	1
	141 2 3749 09700	Shelter	1
	141 2 4729 04700	Staple 10	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description			Q'ty
	141 2 4729 05000	Staple 5			1
	143 3 1302 60811	Screw, Pan Hd. Tapping-B, +M2.6x8			2
CN11	4 2359 77801	Connector 9P Assy			1
IC101	4 2069 71830	IC, BA 6124			1
IC201	4 2069 71830	IC, BA 6124			1
D101	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D102	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D103	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D104	DYY - SLB- 72UR-	LED, SLB 72 UR 4 HL			1
D105	DYY - SLB- 72UR-	LED, SLB 72 UR 4 HL			1
D201	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D202	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D203	DYY - SLB- 72GG-	LED, SLB 72 GG 4 HL			1
D204	DYY - SLB- 72UR-	LED, SLB 72 UR 4 HL			1
D205	DYY - SLB- 72UR-	LED, SLB 72 UR 4 HL			1
D301	DOO - SLP- 173B-	LED, SLP 173 B (Normal)			1
D302	DOO - SLP- 173B-	LED, SLP 173 B (CrO2)			1
D303	DOO - SLP- 173B-	LED, SLP 173 B (Metal)			1
D304	4 2029 72101	LED, GL 9 PR 54			1
D305	4 2029 72100	LED, GL 9 NG 54			1
D306	4 2029 72101	LED, GL 9 PR 54			1
C101	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C102	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C201	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
C202	CD1 0 5500 0001V	Electrolytic	1μF	50V	1
C301	CD1 0 6160 0001V	Electrolytic	10μF	16V	1
R101	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R102	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R103	RP3 9 3121 JH000	Carbon	39kΩ	1/8W ±5%	1
R201	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R202	RP1 0 3121 JH000	Carbon	10kΩ	1/8W ±5%	1
R203	RP3 9 3121 JH000	Carbon	39kΩ	1/8W ±5%	1
R301	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1
R302	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1
R303	RD6 8 1251 JM000	Carbon	680Ω	1/4W ±5%	1
R304	RP1 5 2121 JH000	Carbon	1.5kΩ	1/8W ±5%	1

HEADPHONE P.C.B. ASSY

PCB6	141 0 1939 07310	Headphone P.C.B. Assy	1
CN4	131 0 4006 31418	Cord Assy	1
J3	4 2359 77530	Jack 3P Slim (HEADPHONES)	1

ASF SWITCH P.C.B. ASSY

PCB7	141 0 1939 07320	ASF Switch P.C.B. Assy	1
CN20	4 2359 77399	Connector 2P Assy	1
SW3	4 2312 05300	Keyboard Switch (ASF PROGRAM)	1

ASF P.C.B. ASSY

PCB8	141 0 1939 07350	ASF P.C.B. Assy	1
	111 2 6220 11100	Wire Wrap Terminal	3
	141 2 4729 04700	Staple 10	1
	141 2 4729 05000	Staple 5	1
CN7	4 2359 77675	Connector 5P Assy	1
CN16	4 2362 00770	Plug 2P	1
CN17	4 2362 00770	Plug 2P	1
CN18	4 2369 73140	Connector 4P	1
CN19	4 2362 00770	Plug 2P	1
CN20	4 2362 00770	Plug 2P	1
IC501	206 5 9417 51010	IC, LC 7510	1
Q501	203 5 5100 53660	Transistor, 2SC 536	1
Q502	203 5 5083 33160	Transistor, 2SC 3331	1
Q503	203 5 5083 33160	Transistor, 2SC 3331	1
D501	202 5 9600 44610	Diode, DS 446	1
D502	202 5 2810 44210	Diode, DS 442	1
D503	202 5 3210 08212	Zener Diode, GZA8.2Y	1
C501	CM6 8 2500 K00SV	Mylar	0.0068μF 50V ±10%	1
C502	CC1 2 2500 KE00C	Ceramic	0.0012μF 50V ±10%	1
C505	CD1 0 5500 0001V	Electrolytic	1μF 50V	1
C506	CD1 0 5500 0001V	Electrolytic	1μF 50V	1
C507	CM6 8 2500 K00SV	Mylar	0.0068μF 50V ±10%	1
C508	CM6 8 2500 K00SV	Mylar	0.0068μF 50V ±10%	1
C509	CD1 0 5500 0001V	Electrolytic	1μF 50V	1
C510	CD1 0 7100 0001V	Electrolytic	100μF 10V	1
C511	CD1 0 7100 0001V	Electrolytic	100μF 10V	1
R501	RP1 0 2121 JH000	Carbon	1kΩ 1/8W ±5%	1
R502	RP3 3 2121 JH000	Carbon	3.3kΩ 1/8W ±5%	1
R503	RP2 7 4121 JH000	Carbon	270kΩ 1/8W ±5%	1
R504	RP1 5 1121 JH000	Carbon	150Ω 1/8W ±5%	1
R505	RP5 6 2121 JH000	Carbon	5.6kΩ 1/8W ±5%	1
R506	RP1 0 3121 JH000	Carbon	10kΩ 1/8W ±5%	1
R507	RP2 2 2121 JH000	Carbon	2.2kΩ 1/8W ±5%	1
R508	RP1 5 4121 JH000	Carbon	150kΩ 1/8W ±5%	1
R509	RP5 6 3121 JH000	Carbon	56kΩ 1/8W ±5%	1
R510	RP1 8 4121 JH000	Carbon	180kΩ 1/8W ±5%	1
R511	RP1 5 4121 JH000	Carbon	150kΩ 1/8W ±5%	1
R512	RP6 8 1121 JH000	Carbon	680Ω 1/8W ±5%	1
R513	RP4 7 2121 JH000	Carbon	4.7kΩ 1/8W ±5%	1
R514	RP2 2 3121 JH000	Carbon	22kΩ 1/8W ±5%	1
R515	RP2 7 1121 JH000	Carbon	270Ω 1/8W ±5%	1

POWER TERMINAL P.C.B. ASSY

PCB10	141 0 1939 07330	Power Terminal P.C.B. Assy	1
	4 2372 00830	EC Terminal 1P	2
	111 2 6220 11100	Wire Wrap Terminal	2

NOTES:

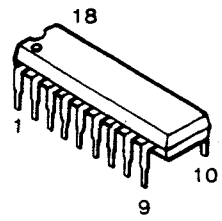
1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

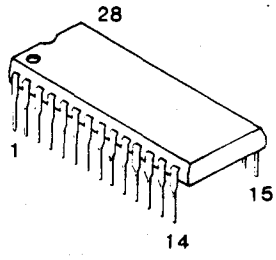
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

SEMICONDUCTOR LEAD IDENTIFICATION

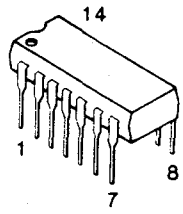
INTEGRATED CIRCUITS



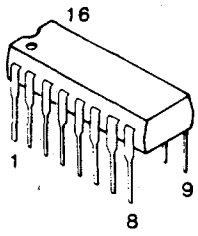
- LC 7510



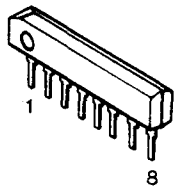
- TEA 0665



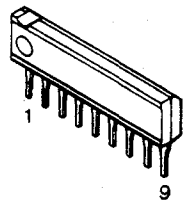
- LC 4001
- LC 4011
- LC 4066
- LC 4081



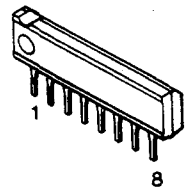
- LC 4050



- LA 6458 DS

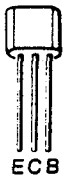


- BA 6124

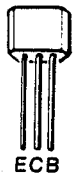


- BA 3302

BI-POLAR TRANSISTORS

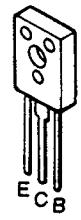


- 2SA 608
- 2SC 1571
- 2SC 3331
- 2SC 536



- 2SD 1012
- DTA 114 S
- DTC 124 S

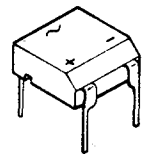
- 2SD 400
- 2SB 892



- 2SC 1846

DIODES

- 1SS 95
- DS 442
- DS 446
- GZA 5.6 X
- GZA 8.2 Y
- GZA 12 Z
- GZA 20 Z



- DBB 10 C

SCHEMATIC DIAGRAM

→ Signal flow of **PLAY**
- - - → Signal flow of **RECORD**

No.	Name	Position	No.	Name	Position
SW1	Record/Play Switch	PLAY	SW7	ASF Switch (Deck 1)	OFF
SW2-1	Rec Mute Switch	OFF	SW8	Motor Switch (Deck 2)	OFF
SW2-2	Synchro Start Switch	SEQ.PLAY	SW9	Play Mute Switch (Deck 2)	ON
SW2-3	Speed Switch	NORMAL	SW10	CrO_2 Switch (Deck 2)	OFF
SW2-4	Dolby ON/OFF Switch	OFF	SW11	Metal Switch (Deck 2)	OFF
SW2-5	Dolby B/C Switch	B	SW12	F.F/Rew Switch (Deck 2)	OFF
SW3	ASF Program Switch	OFF	SW13	OSC Switch (Deck 2)	OFF
SW4	Motor Switch (Deck 1)	OFF	SW14	Record Switch (Deck 2)	OFF
SW5	Play Mute Switch (Deck 1)	ON	SW15	Power Switch	OFF
SW6	CrO_2 Switch (Deck 1)	OFF	SW16	Voltage Select Switch	220V

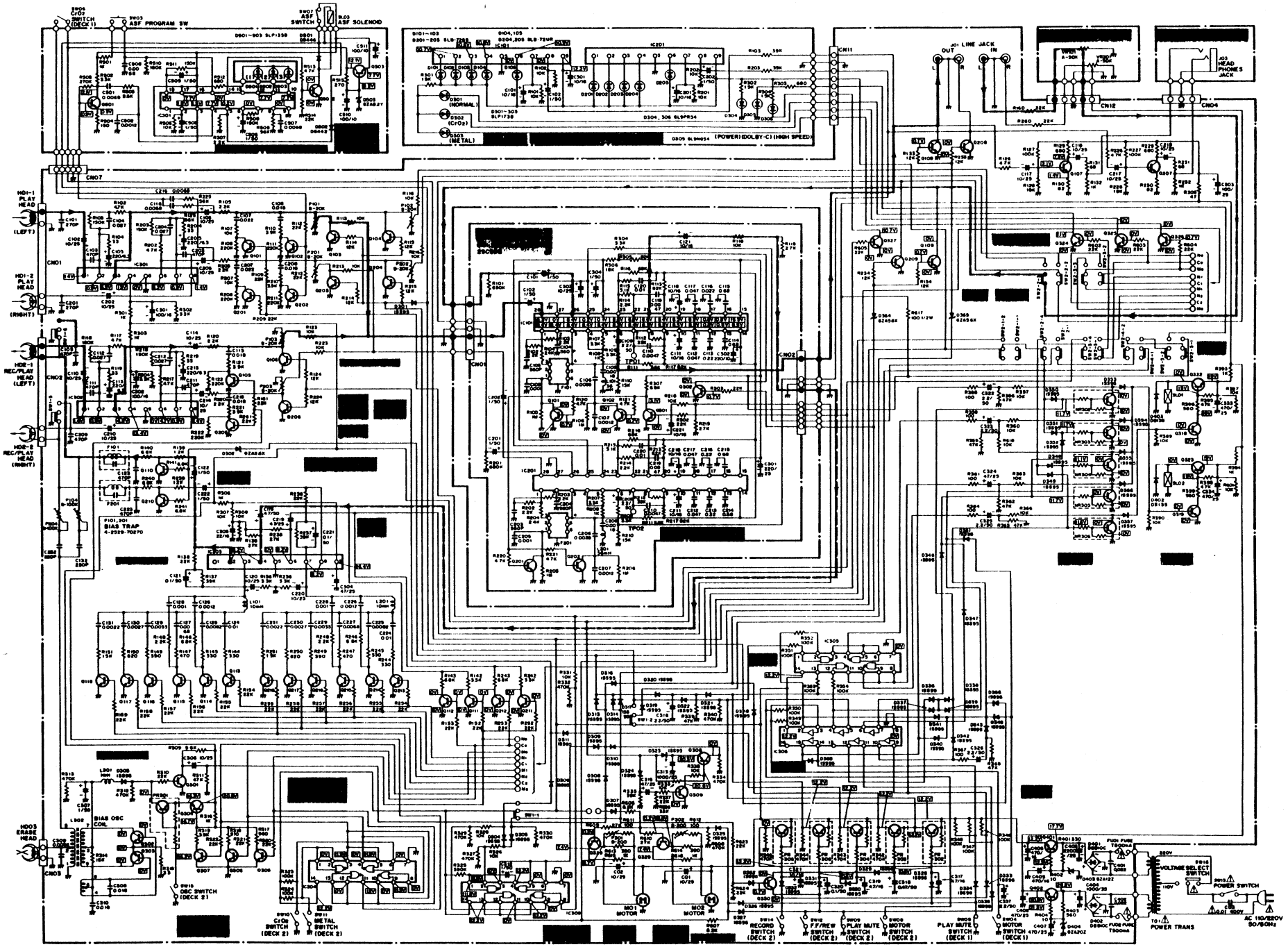
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTES:
1. All resistors values are indicated in "ohm" ($K=10^3$, $M=10^6$).
2. All capacitors values are indicated in "μF" ($P=10^{-12}$).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ± 10 % with respect to chassis ground
   c. No signals at input terminals
   d. AC input at 220 volts 50 Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.

SCHEMATIC DIAGRAM (Continued)



POINT TO POINT WIRING DIAGRAM